



Shenzhen CTL Testing Technology Co., Ltd.

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1. Bandwidth

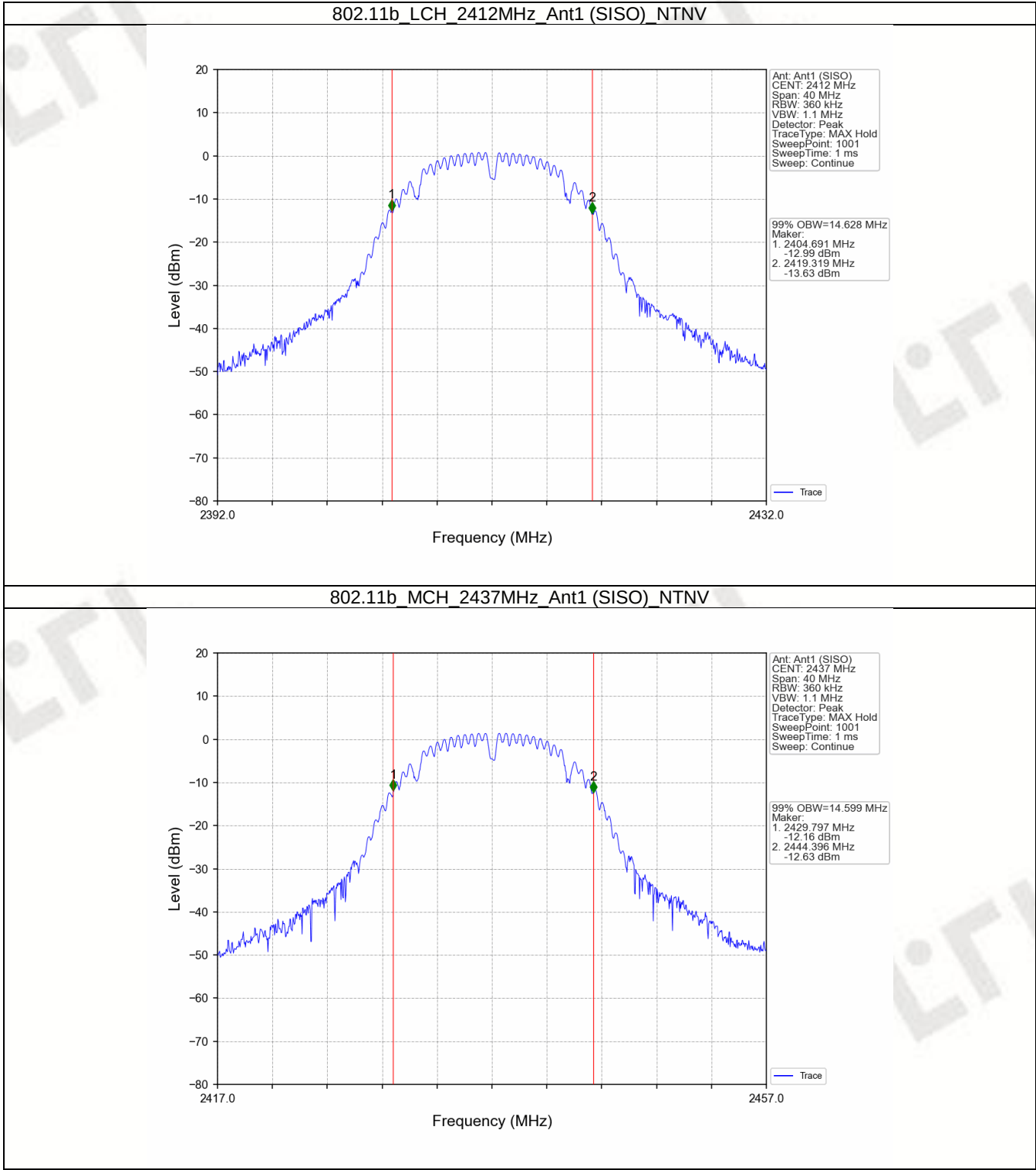
1.1 OBW

1.1.1 Test Result

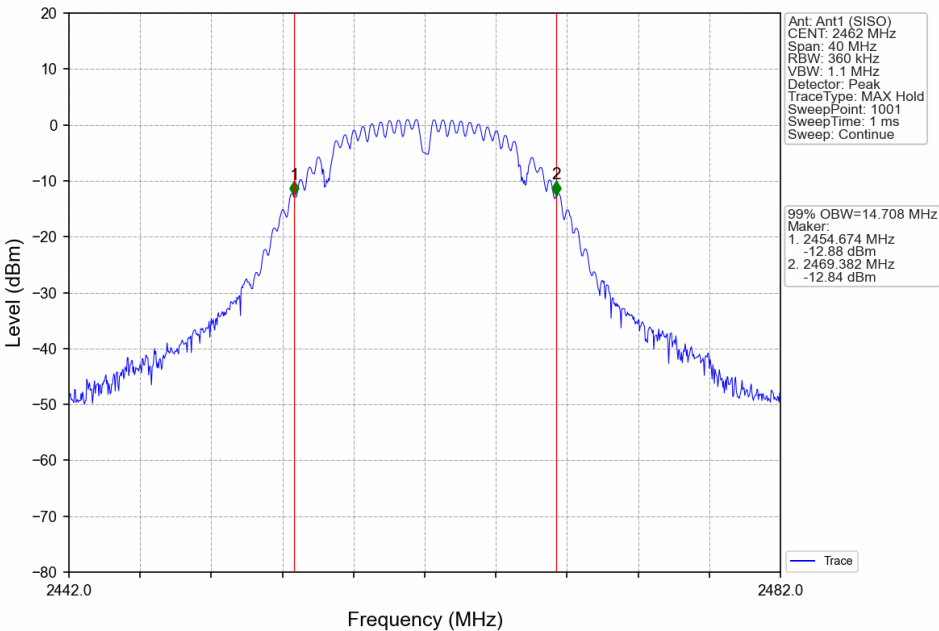
Mode	TX Type	Frequency (MHz)	ANT	99% Occupied Bandwidth (MHz)		Verdict
				Result	Limit	
802.11b	SISO	2412	1	14.628	/	Pass
		2437	1	14.599	/	Pass
		2462	1	14.708	/	Pass
802.11g	SISO	2412	1	17.212	/	Pass
		2437	1	17.225	/	Pass
		2462	1	17.226	/	Pass
802.11n (HT20)	SISO	2412	1	18.556	/	Pass
		2437	1	18.456	/	Pass
		2462	1	18.518	/	Pass
802.11n (HT40)	SISO	2422	1	37.037	/	Pass
		2437	1	36.889	/	Pass
		2452	1	36.960	/	Pass
802.11n (HT20)	MIMO	2412	/	18.525	/	Pass
		2437	/	18.401	/	Pass
		2462	/	18.477	/	Pass
802.11n (HT40)	MIMO	2422	/	36.963	/	Pass
		2437	/	36.890	/	Pass
		2452	/	36.930	/	Pass

Mode	TX Type	Frequency (MHz)	ANT	99% Occupied Bandwidth (MHz)	Verdict
				Result	
802.11b	SISO	2412	2	14.695	Pass
		2437	2	14.707	Pass
		2462	2	14.716	Pass
802.11g	SISO	2412	2	17.225	Pass
		2437	2	17.247	Pass
		2462	2	17.199	Pass
802.11n (HT20)	SISO	2412	2	18.522	Pass
		2437	2	18.543	Pass
		2462	2	18.439	Pass
802.11n (HT40)	SISO	2422	2	36.939	Pass
		2437	2	36.913	Pass
		2452	2	36.869	Pass

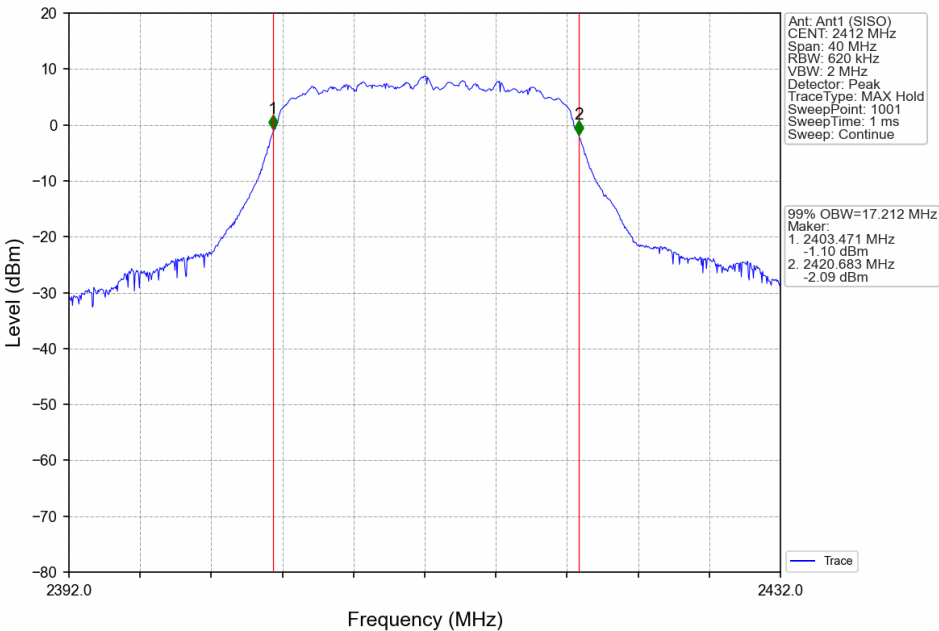
1.1.2 Test Graph

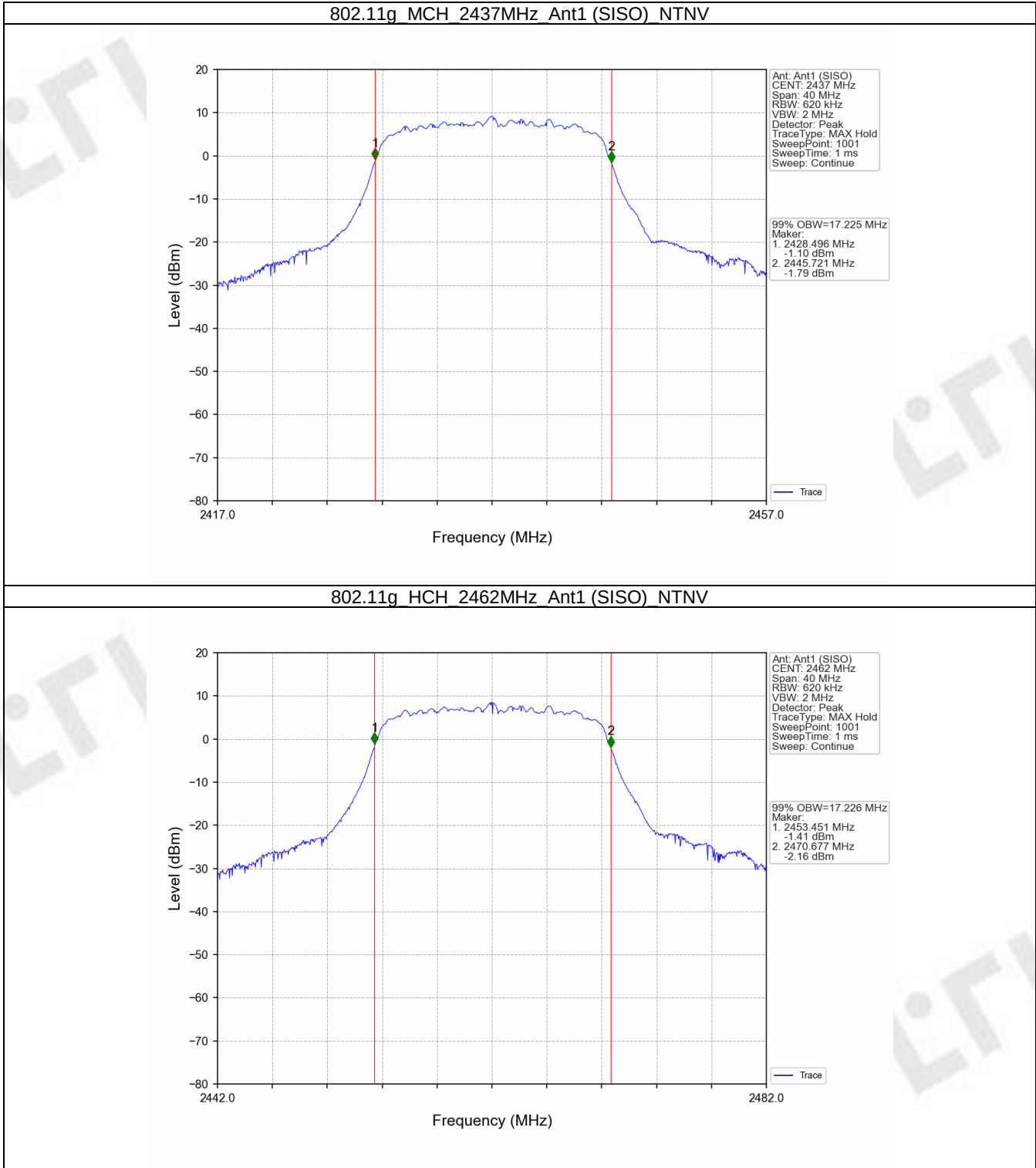


802.11b HCH 2462MHz Ant1 (SISO) NTN

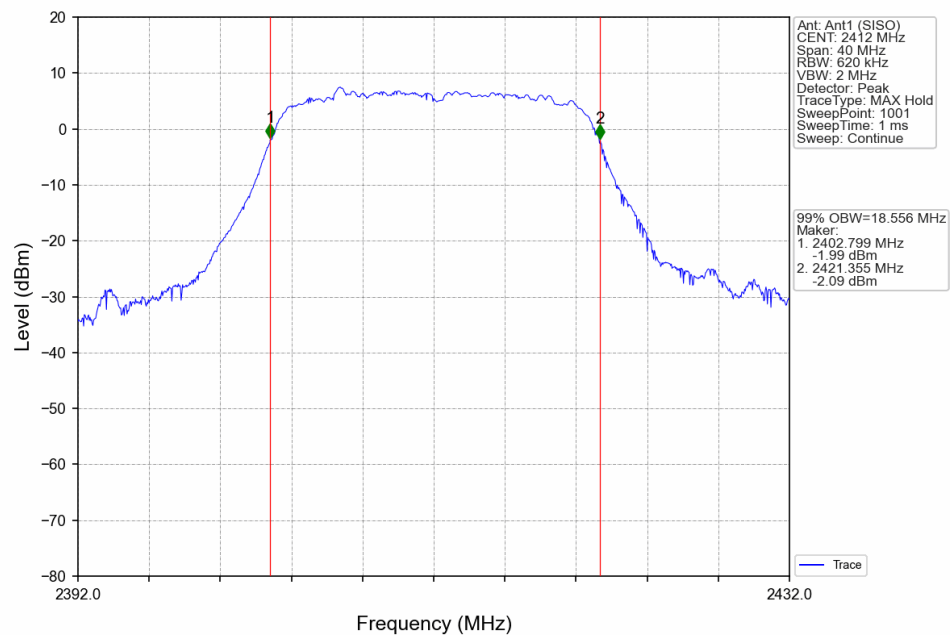


802.11g LCH 2412MHz Ant1 (SISO) NTN

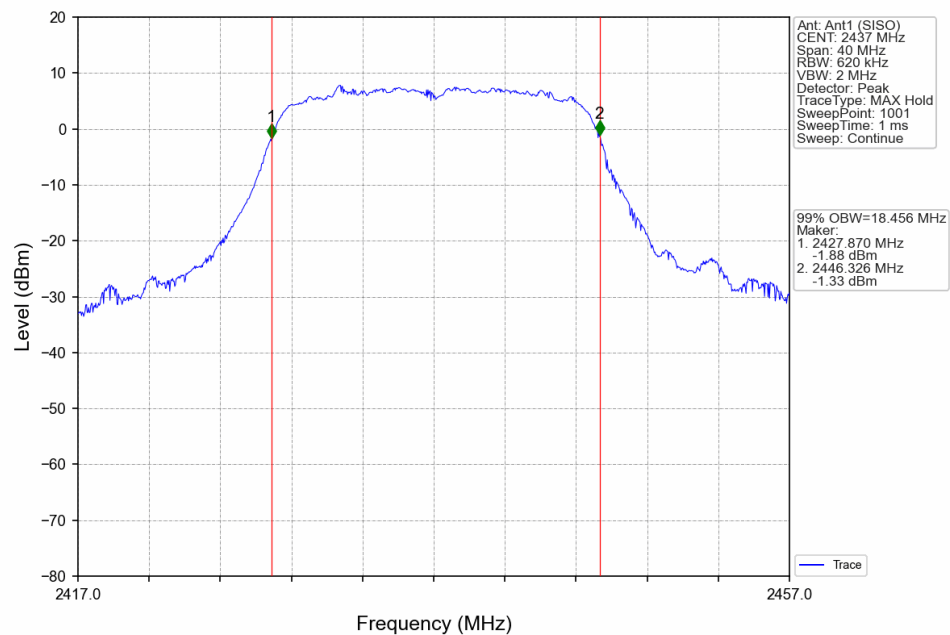




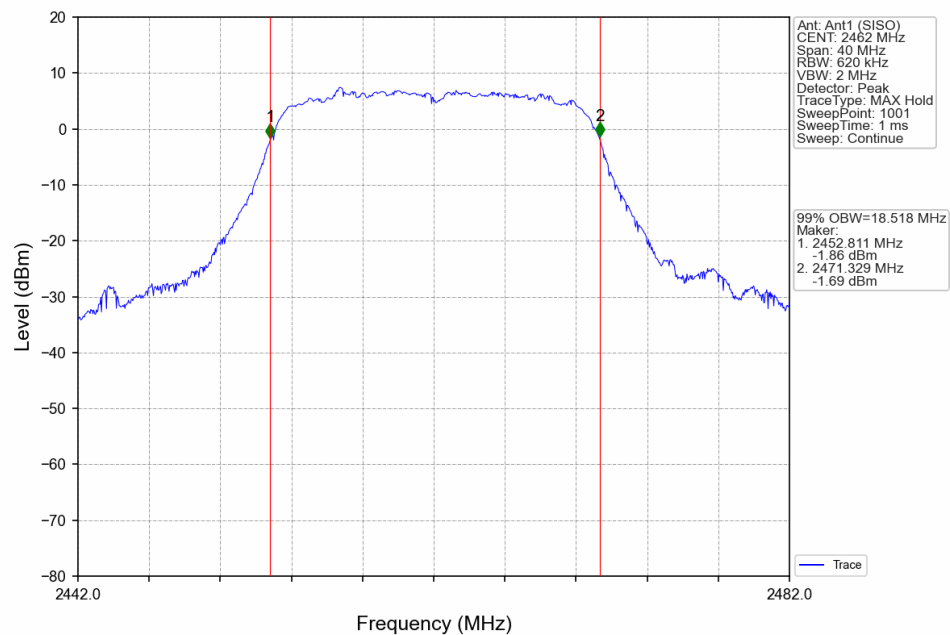
802.11n(HT20) LCH 2412MHz Ant1 (SISO) NTNV



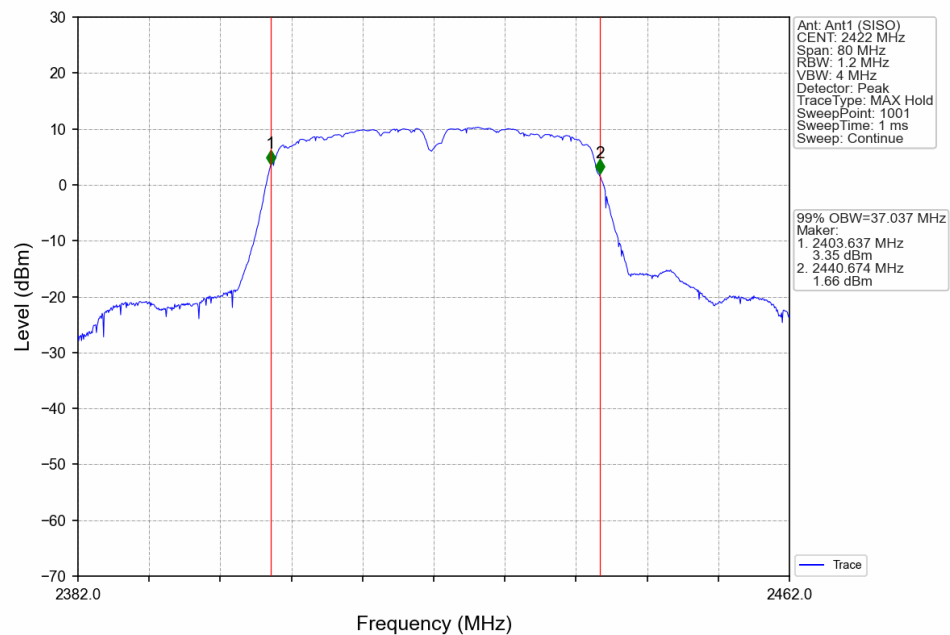
802.11n(HT20) MCH 2437MHz Ant1 (SISO) NTNV



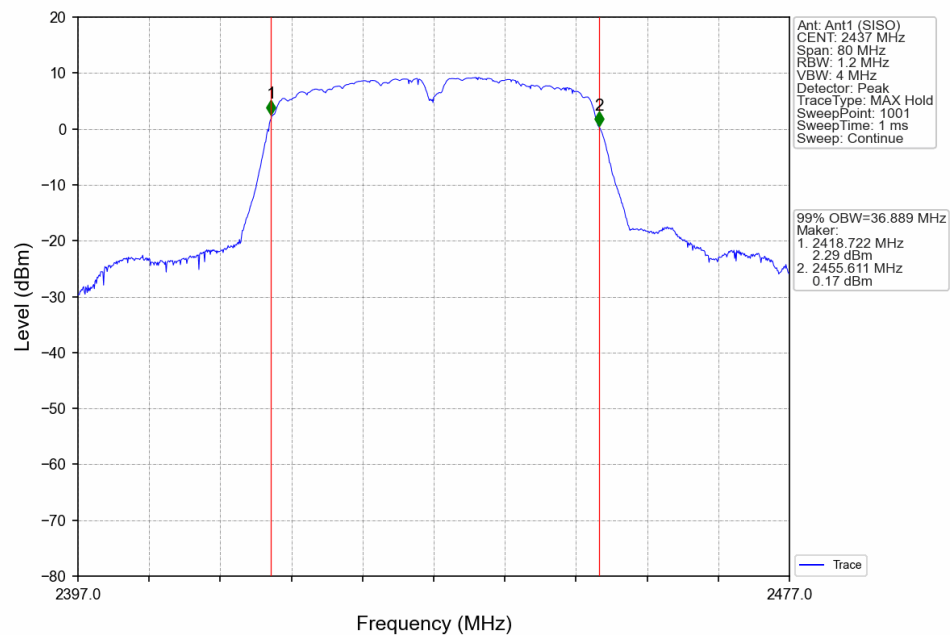
802.11n(HT20) HCH 2462MHz Ant1 (SISO) NTV



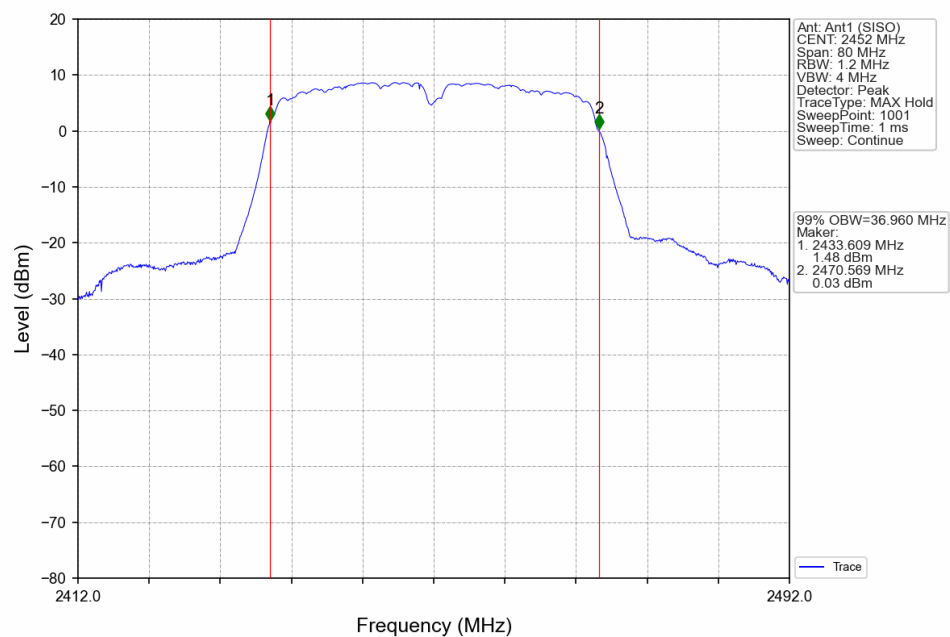
802.11n(HT40) LCH 2422MHz Ant1 (SISO) NTV



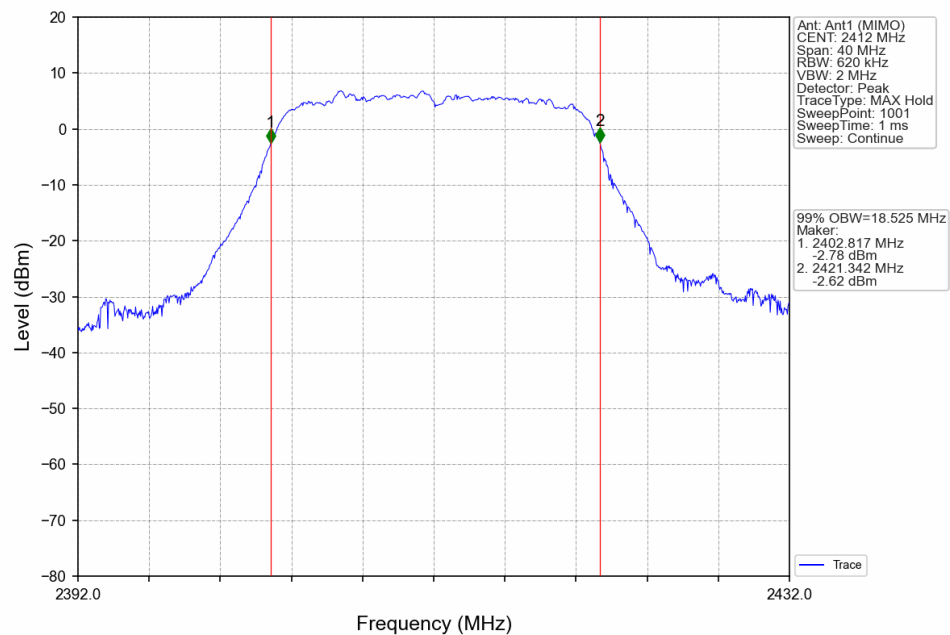
802.11n(HT40) MCH 2437MHz Ant1 (SISO) NTNV



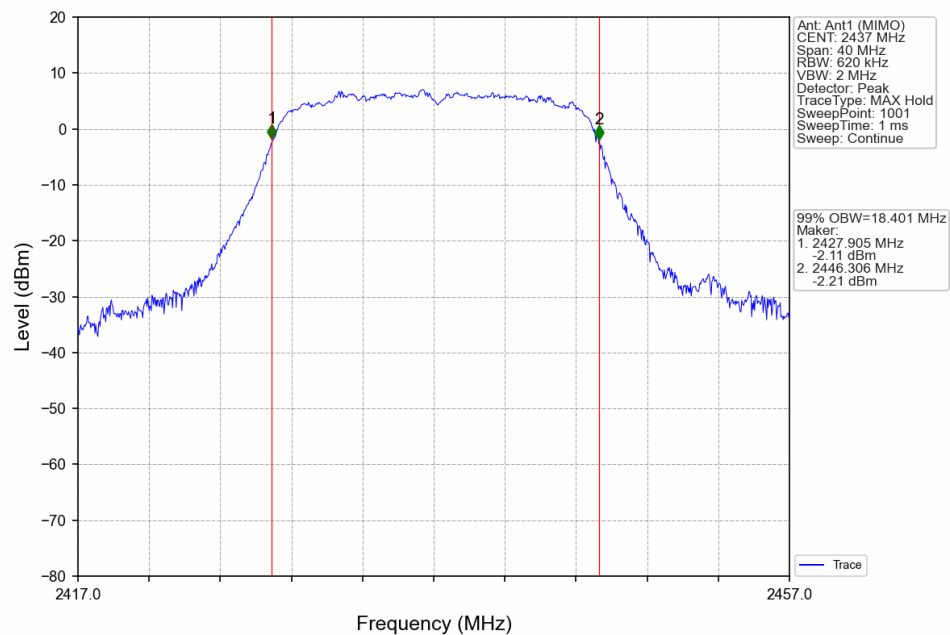
802.11n(HT40) HCH 2452MHz Ant1 (SISO) NTNV



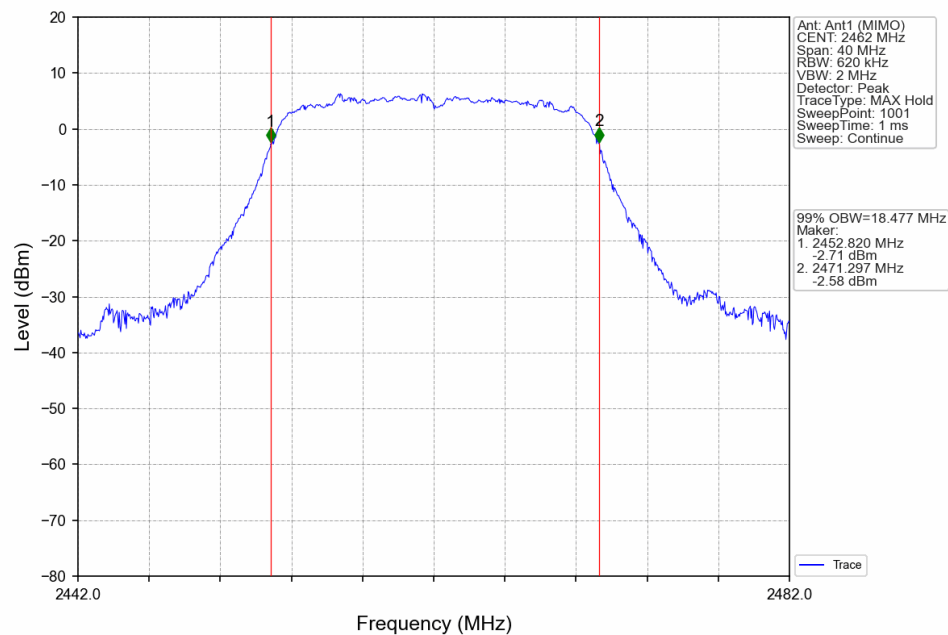
802.11n(HT20) LCH 2412MHz Ant1 (MIMO) NTNV



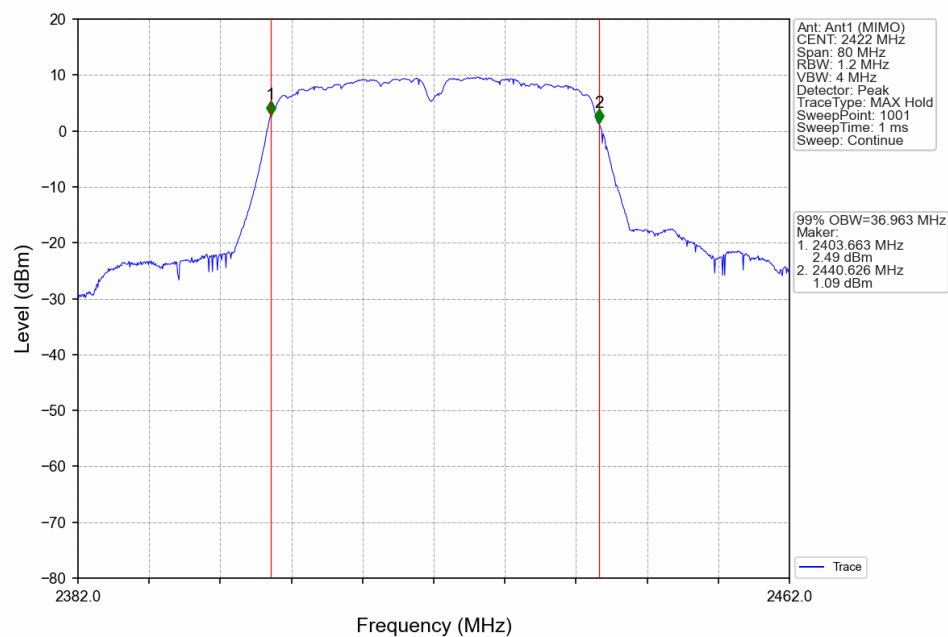
802.11n(HT20) MCH 2437MHz Ant1 (MIMO) NTNV



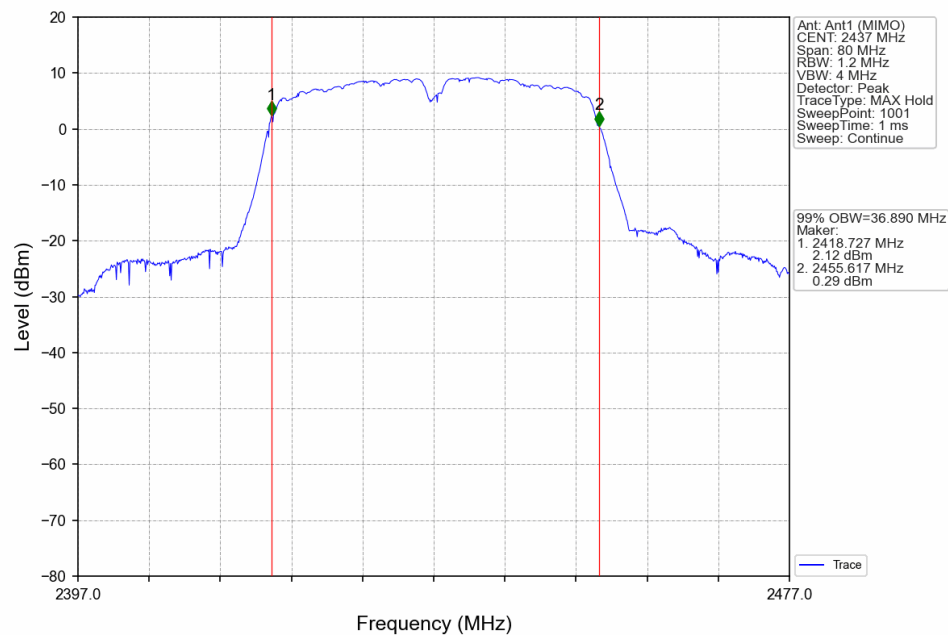
802.11n(HT20) HCH 2462MHz Ant1 (MIMO) NTNV



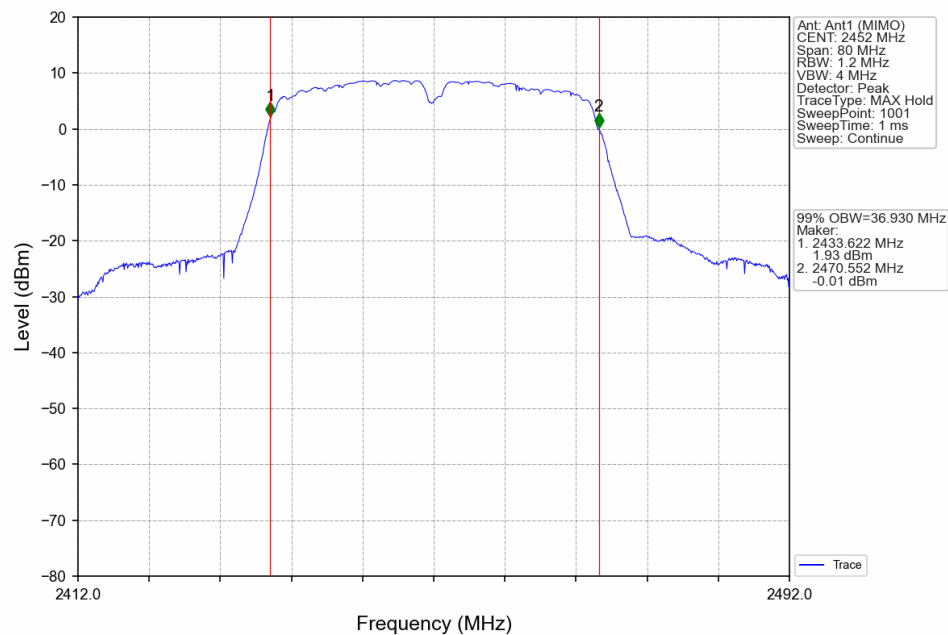
802.11n(HT40) LCH 2422MHz Ant1 (MIMO) NTNV



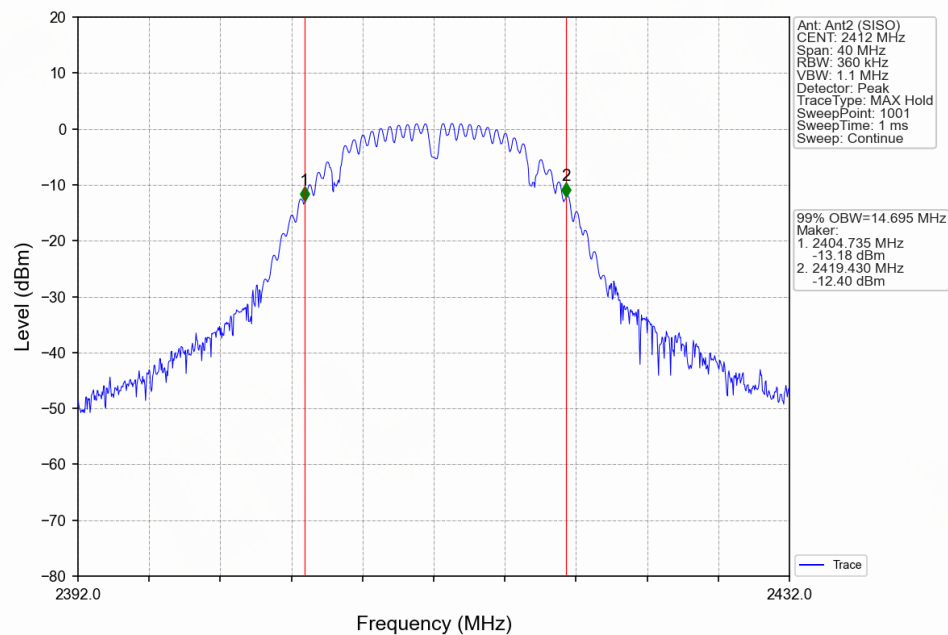
802.11n(HT40) MCH 2437MHz Ant1 (MIMO) NTNV



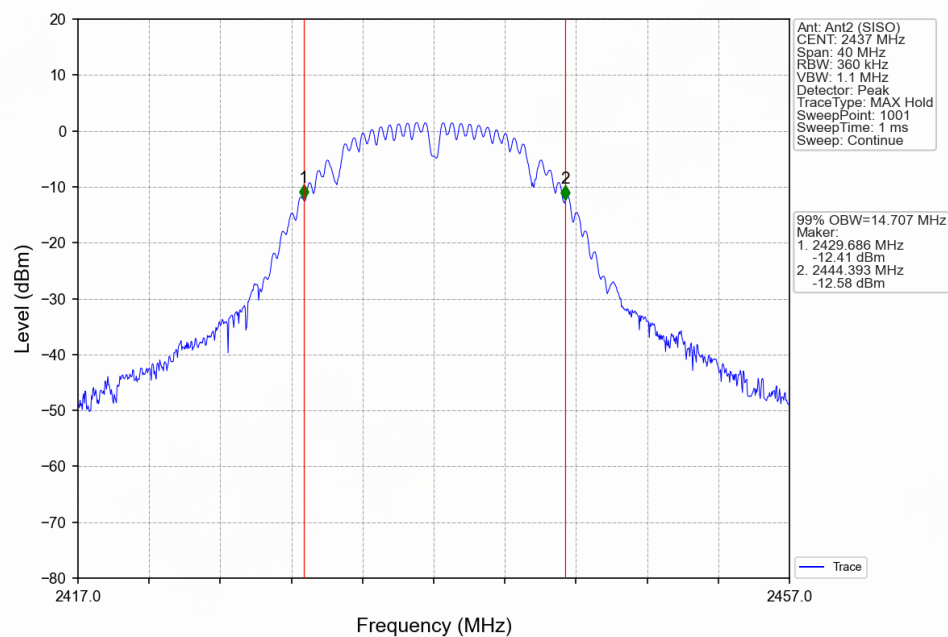
802.11n(HT40) HCH 2452MHz Ant1 (MIMO) NTNV



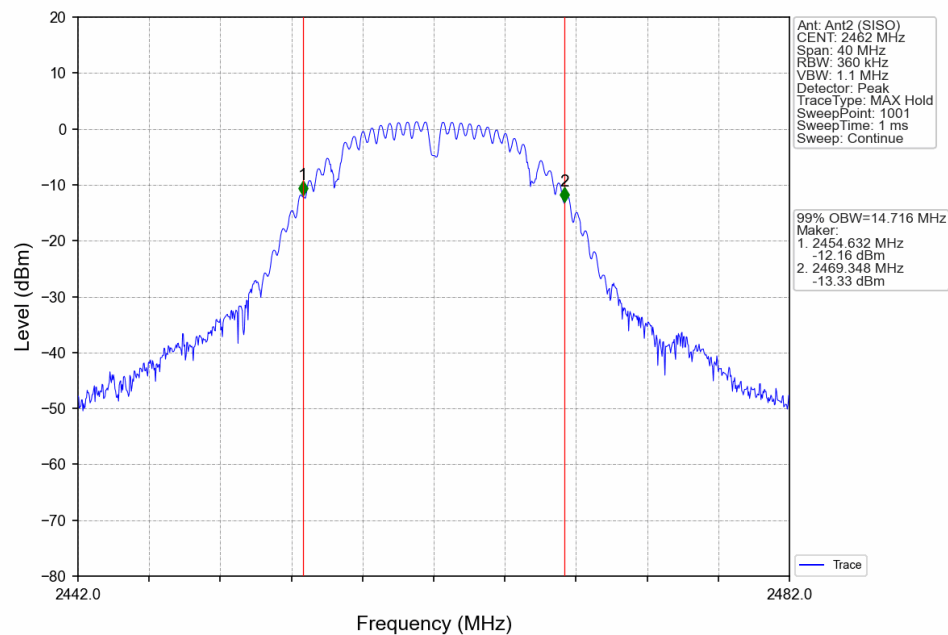
802.11b LCH 2412MHz Ant2 (SISO) NTN



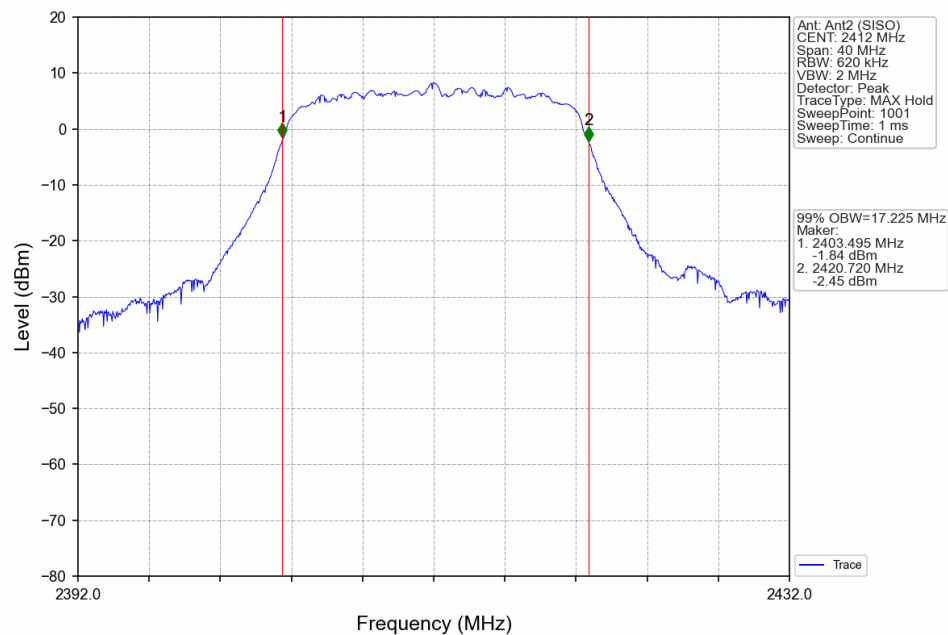
802.11b MCH 2437MHz Ant2 (SISO) NTN

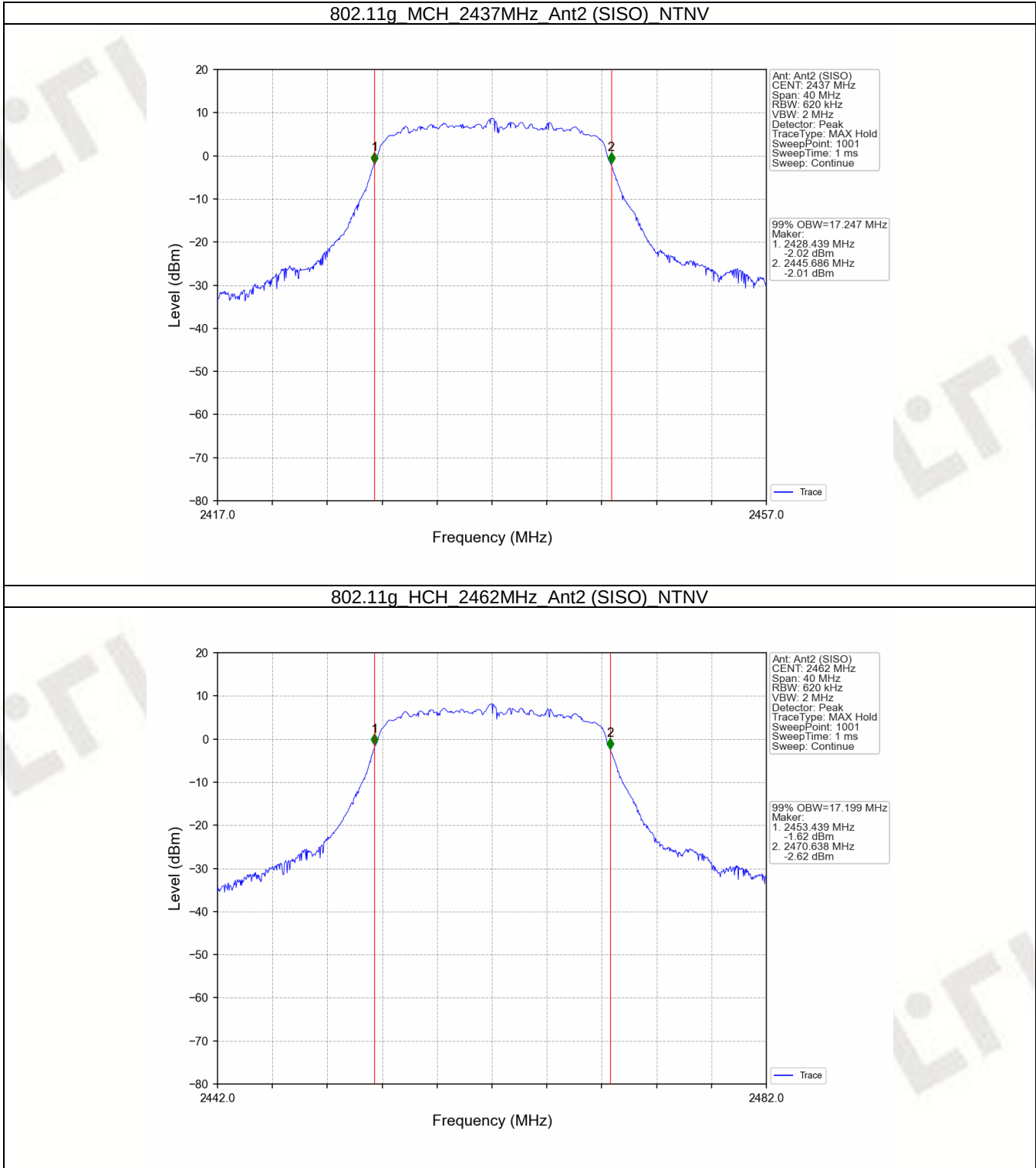


802.11b HCH 2462MHz Ant2 (SISO) NTN

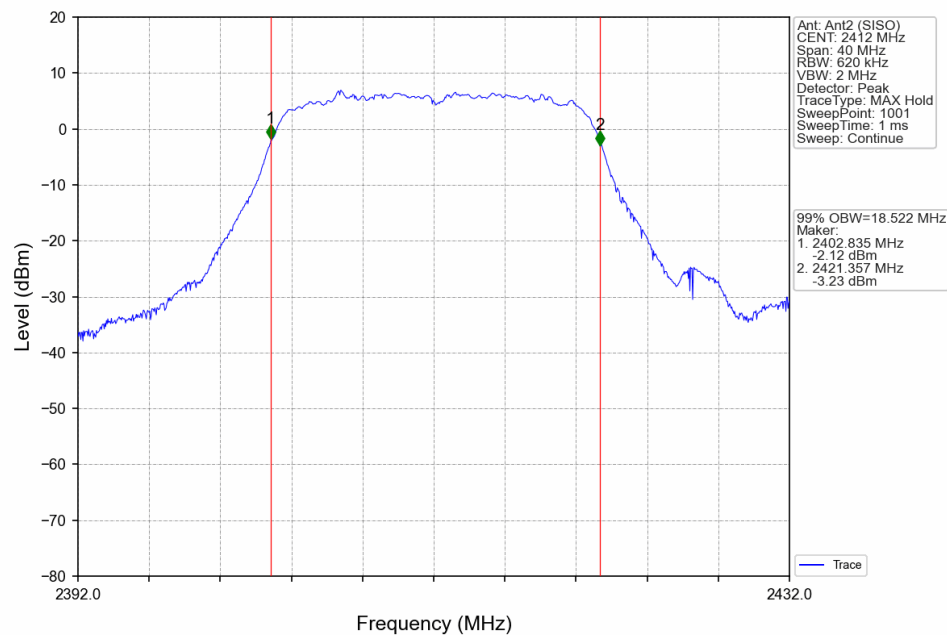


802.11g LCH 2412MHz Ant2 (SISO) NTN

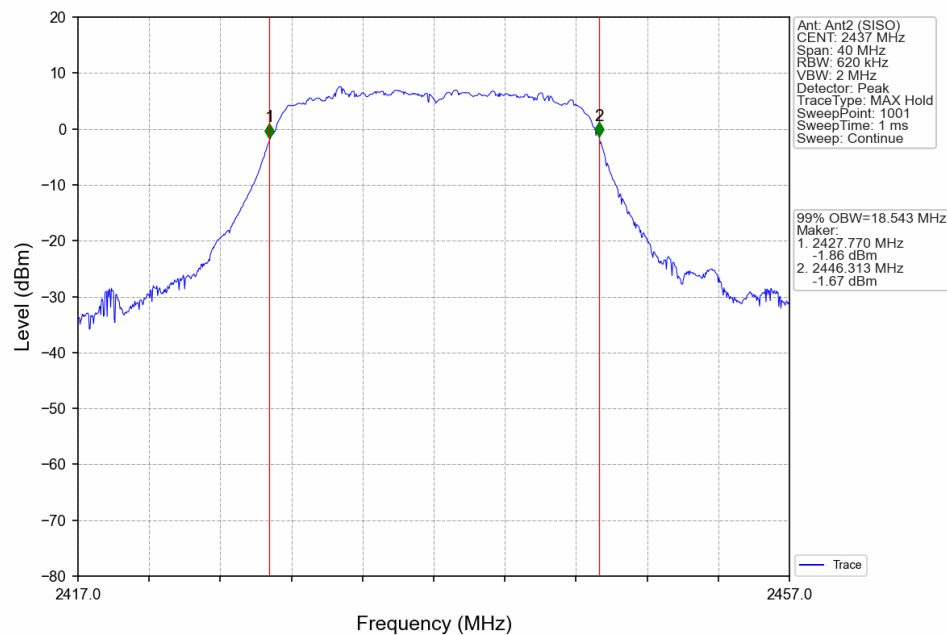




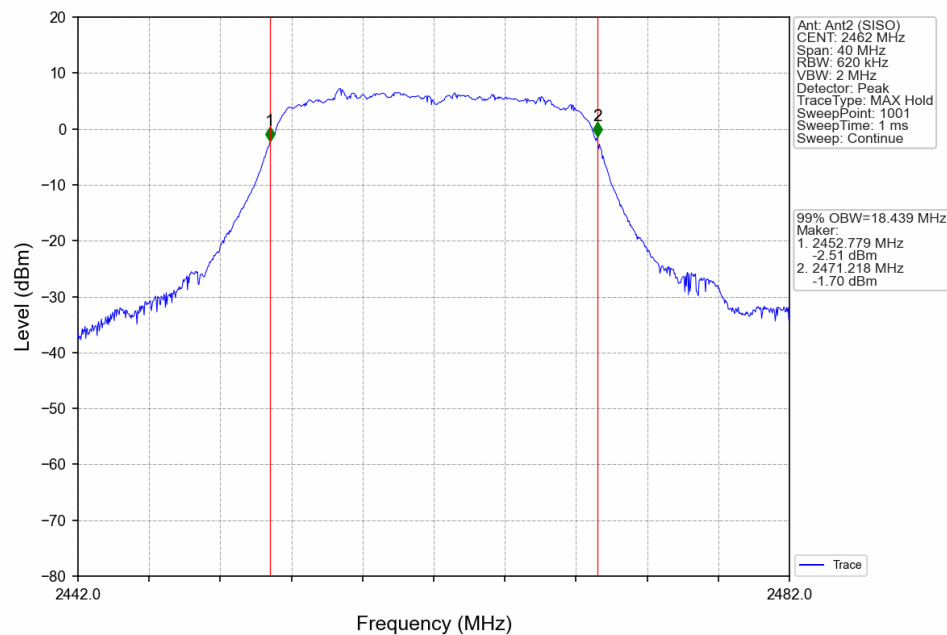
802.11n(HT20) LCH 2412MHz Ant2 (SISO) NTNV



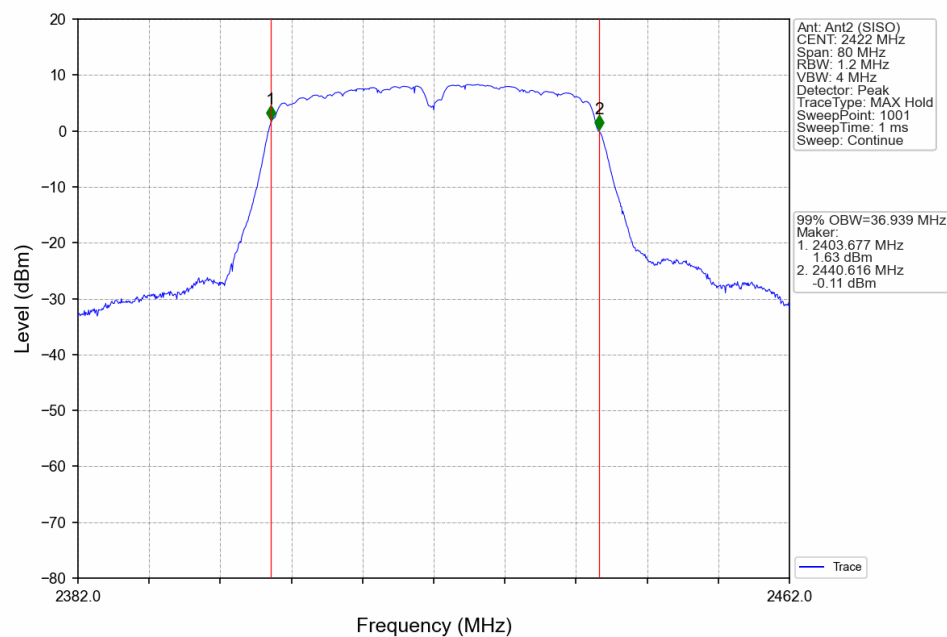
802.11n(HT20) MCH 2437MHz Ant2 (SISO) NTNV



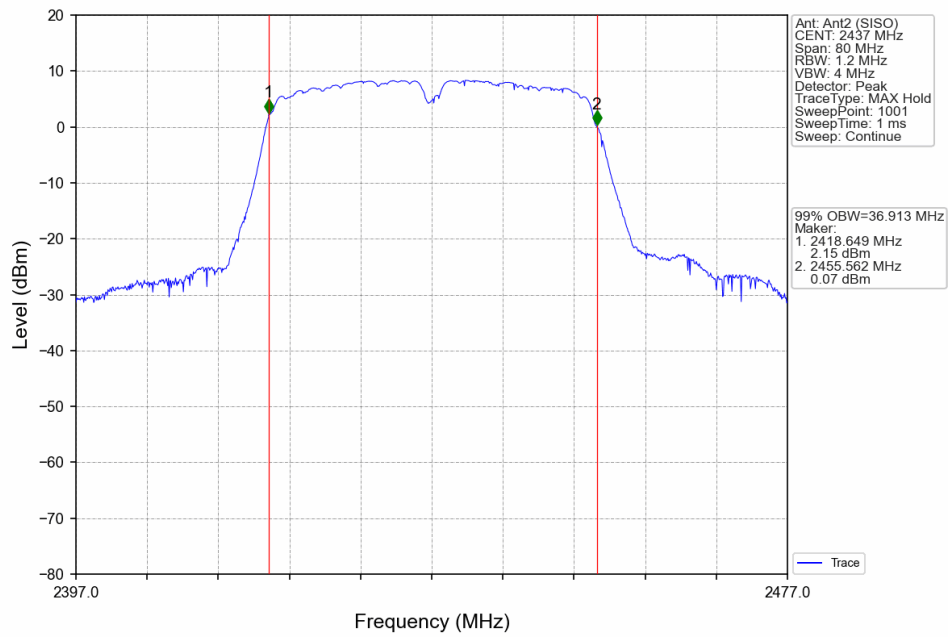
802.11n(HT20) HCH 2462MHz Ant2 (SISO) NTNV



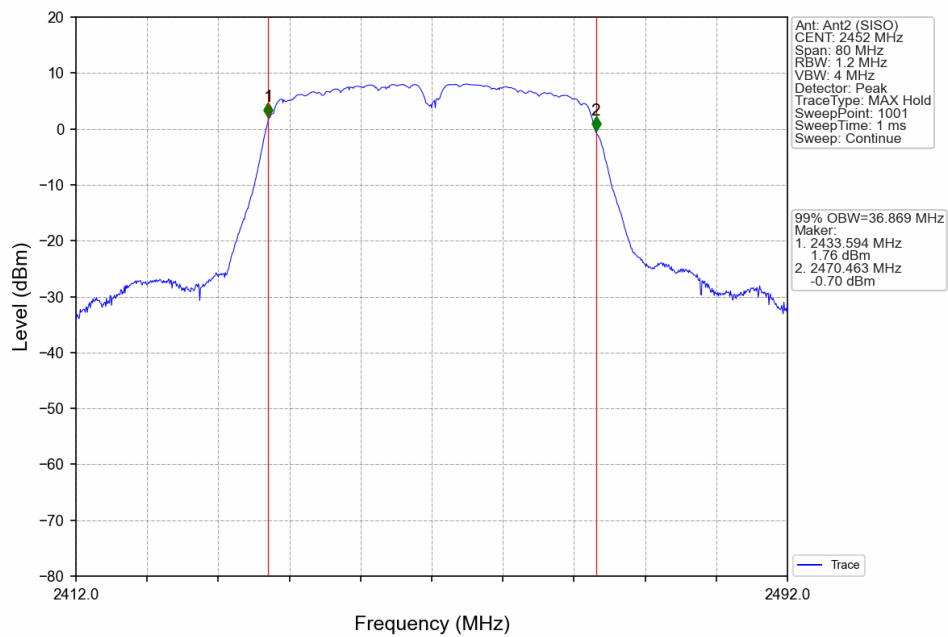
802.11n(HT40) LCH 2422MHz Ant2 (SISO) NTNV



802.11n(HT40) MCH 2437MHz Ant2 (SISO) NTNV



802.11n(HT40) HCH 2452MHz Ant2 (SISO) NTNV



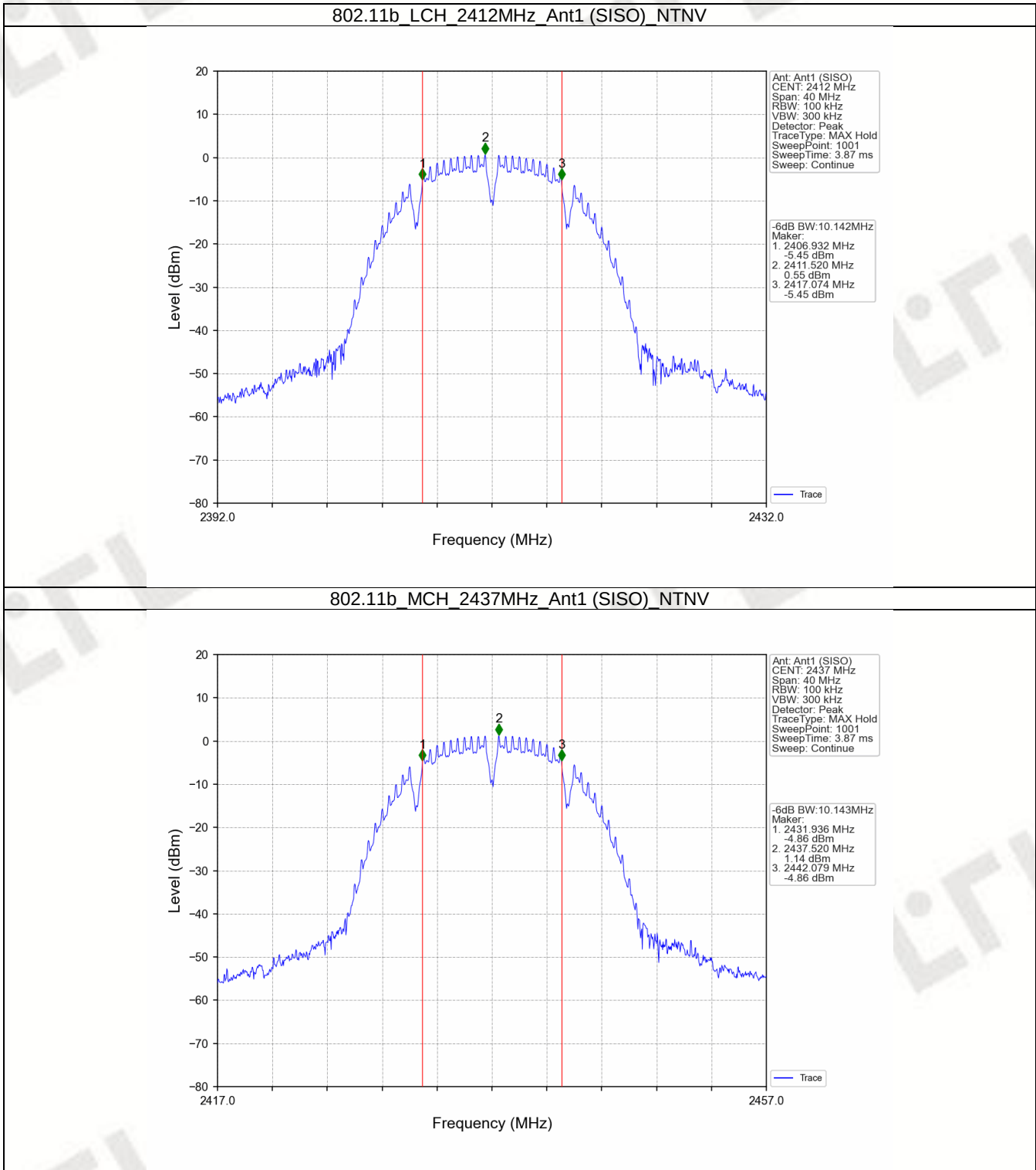
1.2 6dB BW

1.2.1 Test Result

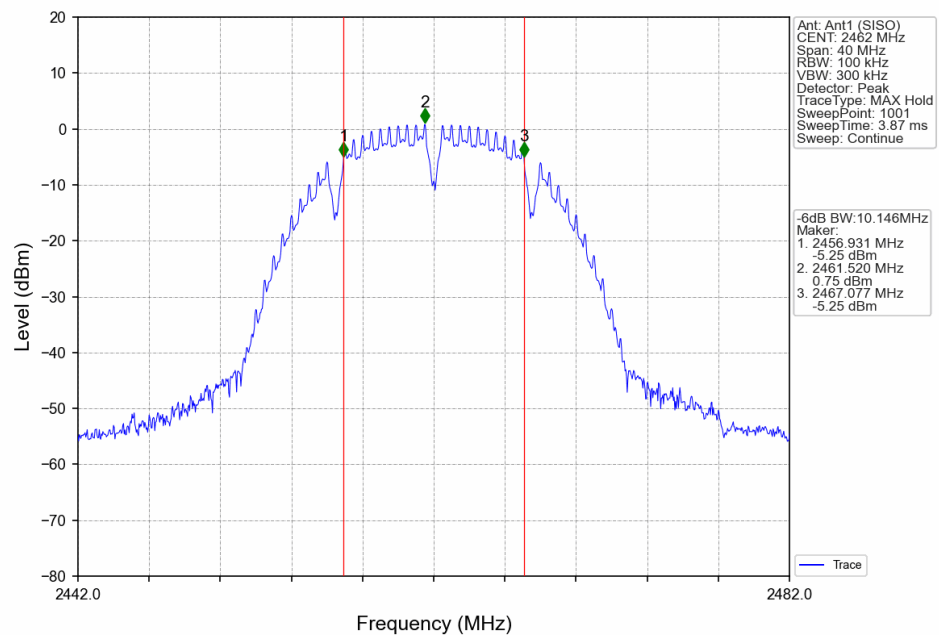
Mode	TX Type	Frequency (MHz)	ANT	6dB Bandwidth (MHz)		Verdict
				Result	Limit	
802.11b	SISO	2412	1	10.142	≥ 0.5	Pass
		2437	1	10.143	≥ 0.5	Pass
		2462	1	10.146	≥ 0.5	Pass
802.11g	SISO	2412	1	15.675	≥ 0.5	Pass
		2437	1	15.557	≥ 0.5	Pass
		2462	1	15.682	≥ 0.5	Pass
802.11n (HT20)	SISO	2412	1	16.345	≥ 0.5	Pass
		2437	1	15.816	≥ 0.5	Pass
		2462	1	16.074	≥ 0.5	Pass
802.11n (HT40)	SISO	2422	1	35.197	≥ 0.5	Pass
		2437	1	35.164	≥ 0.5	Pass
		2452	1	35.187	≥ 0.5	Pass
802.11n (HT20)	MIMO	2412	/	16.709	≥ 0.5	Pass
		2437	/	16.537	≥ 0.5	Pass
		2462	/	16.944	≥ 0.5	Pass
802.11n (HT40)	MIMO	2422	/	35.175	≥ 0.5	Pass
		2437	/	35.164	≥ 0.5	Pass
		2452	/	35.184	≥ 0.5	Pass

Mode	TX Type	Frequency (MHz)	ANT	6dB Bandwidth (MHz)		Verdict
				Result	Limit	
802.11b	SISO	2412	2	10.146	≥ 0.5	Pass
		2437	2	10.145	≥ 0.5	Pass
		2462	2	10.146	≥ 0.5	Pass
802.11g	SISO	2412	2	15.575	≥ 0.5	Pass
		2437	2	15.719	≥ 0.5	Pass
		2462	2	15.709	≥ 0.5	Pass
802.11n (HT20)	SISO	2412	2	16.526	≥ 0.5	Pass
		2437	2	16.982	≥ 0.5	Pass
		2462	2	16.716	≥ 0.5	Pass
802.11n (HT40)	SISO	2422	2	35.180	≥ 0.5	Pass
		2437	2	35.186	≥ 0.5	Pass
		2452	2	35.175	≥ 0.5	Pass

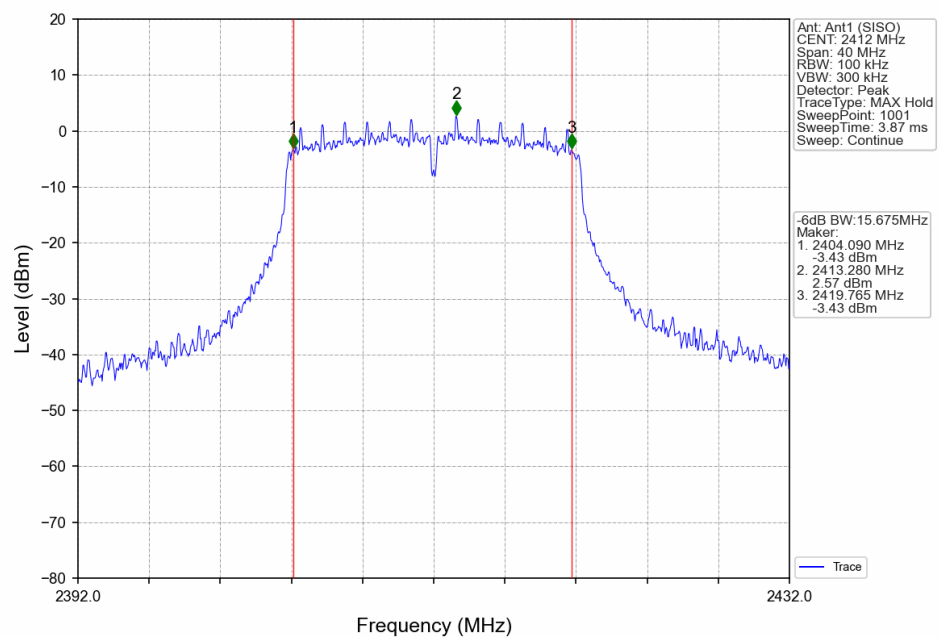
1.2.2 Test Graph



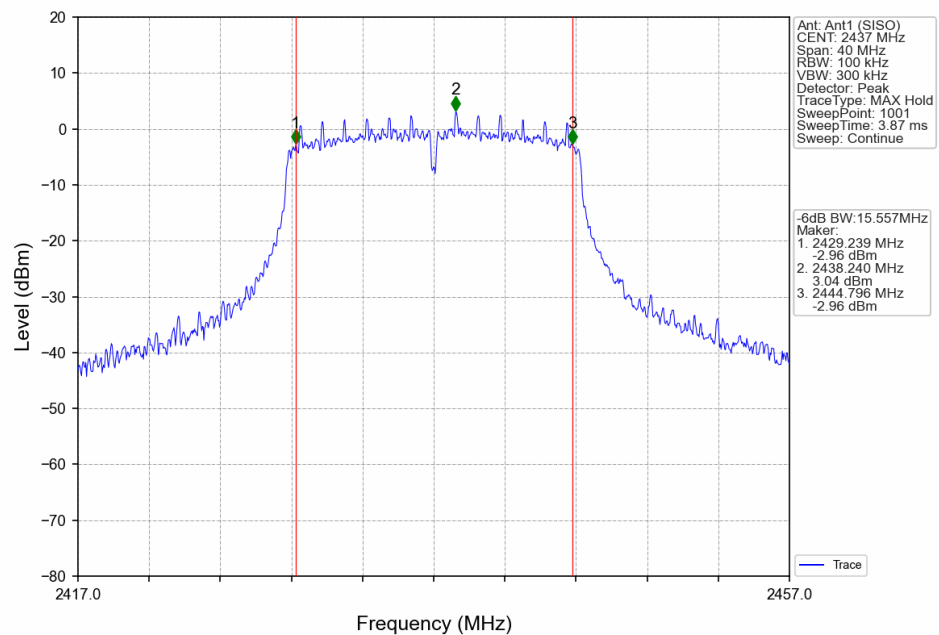
802.11b HCH 2462MHz Ant1 (SISO) NTN



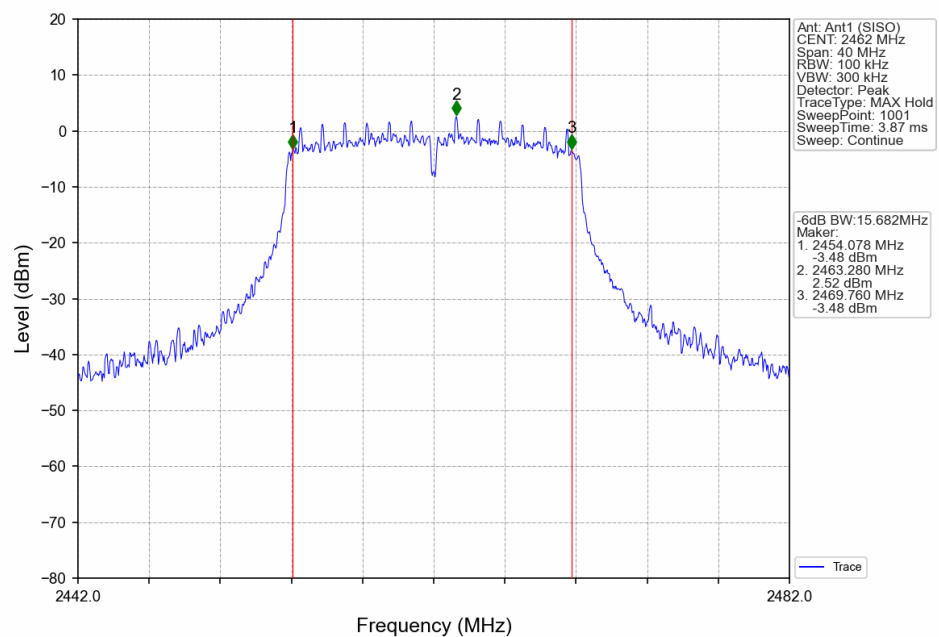
802.11g LCH 2412MHz Ant1 (SISO) NTN



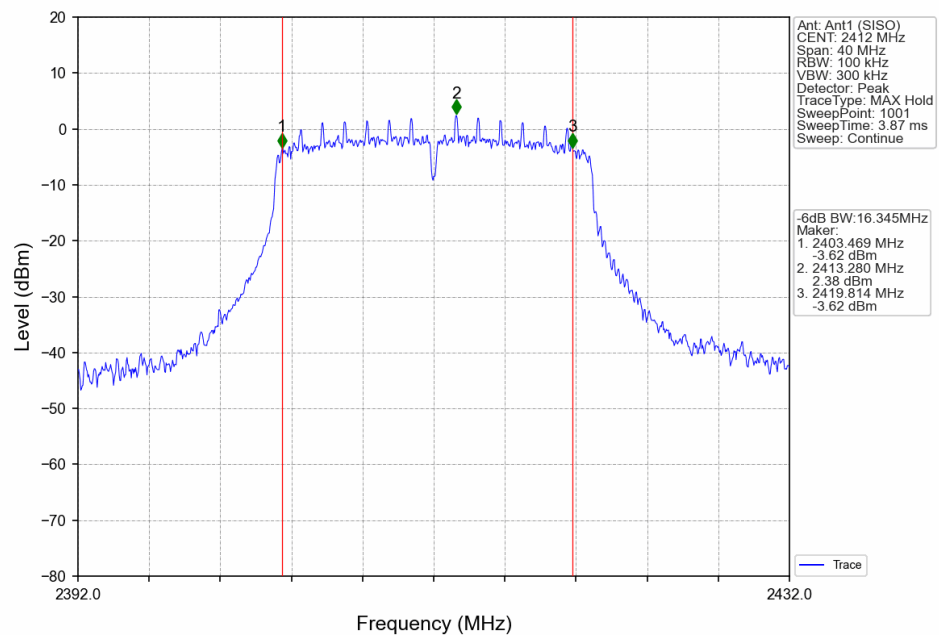
802.11g MCH 2437MHz Ant1 (SISO) NTN



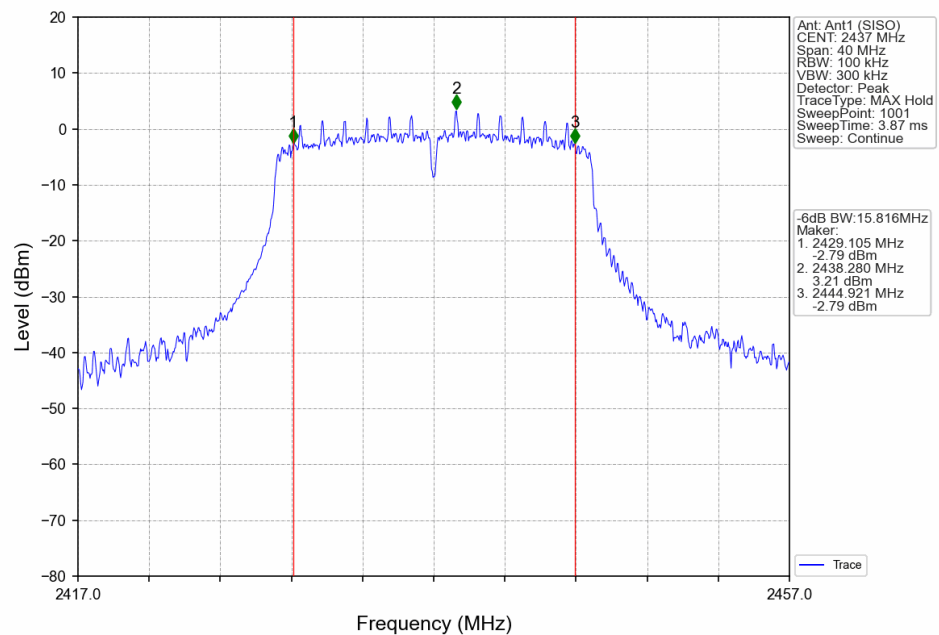
802.11g HCH 2462MHz Ant1 (SISO) NTN



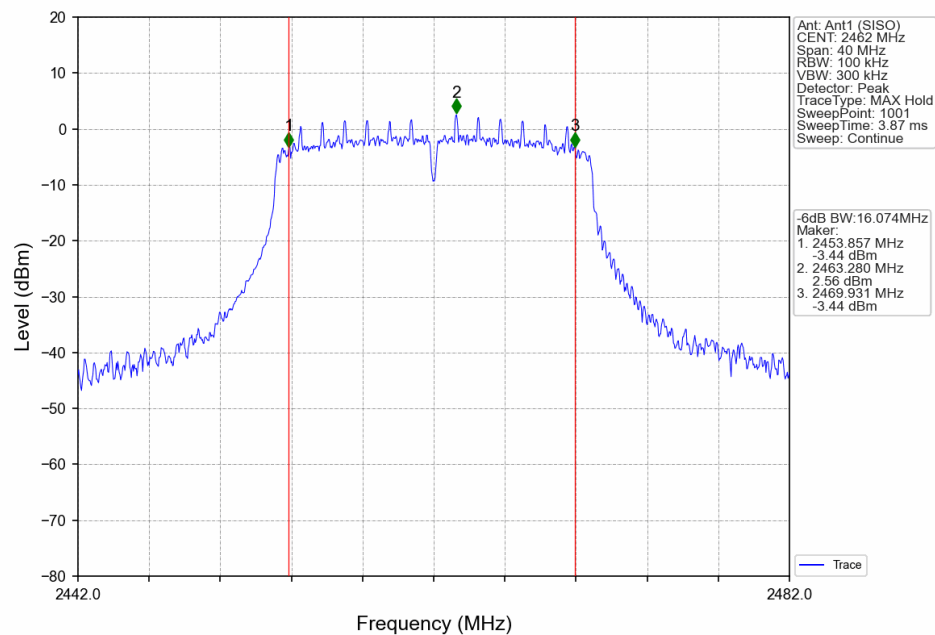
802.11n(HT20) LCH 2412MHz Ant1 (SISO) NTNV



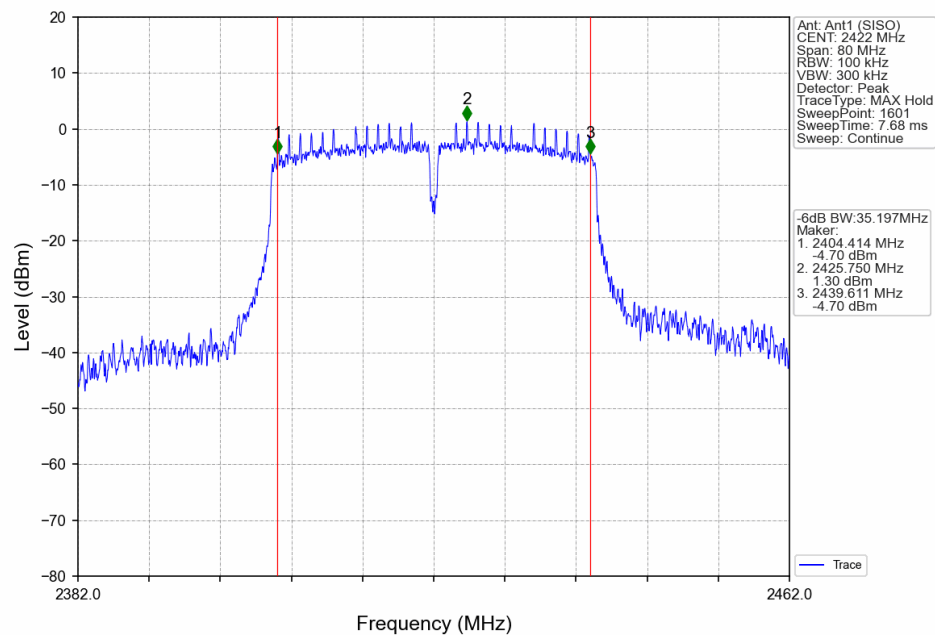
802.11n(HT20) MCH 2437MHz Ant1 (SISO) NTNV



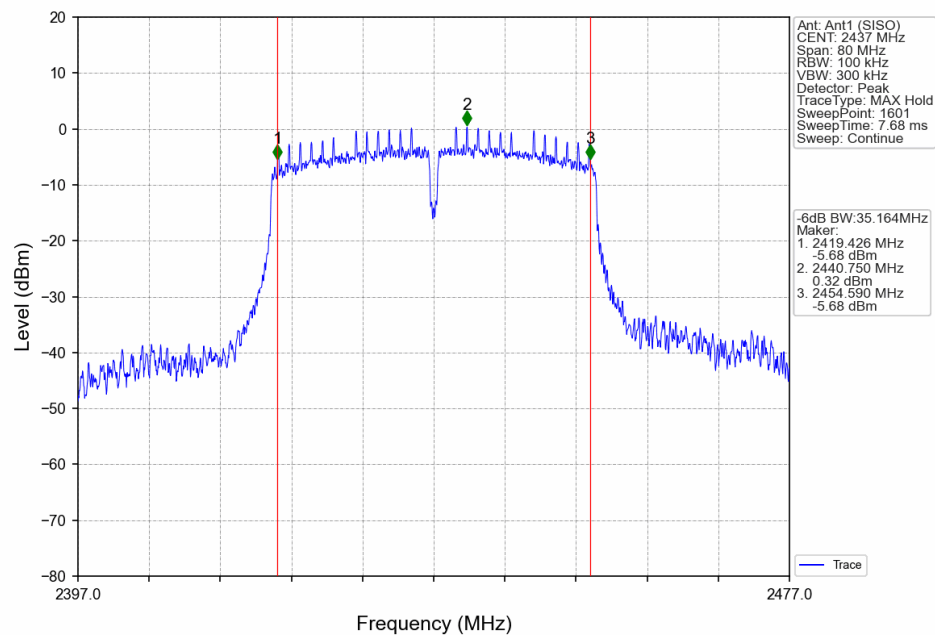
802.11n(HT20) HCH 2462MHz Ant1 (SISO) NTNV



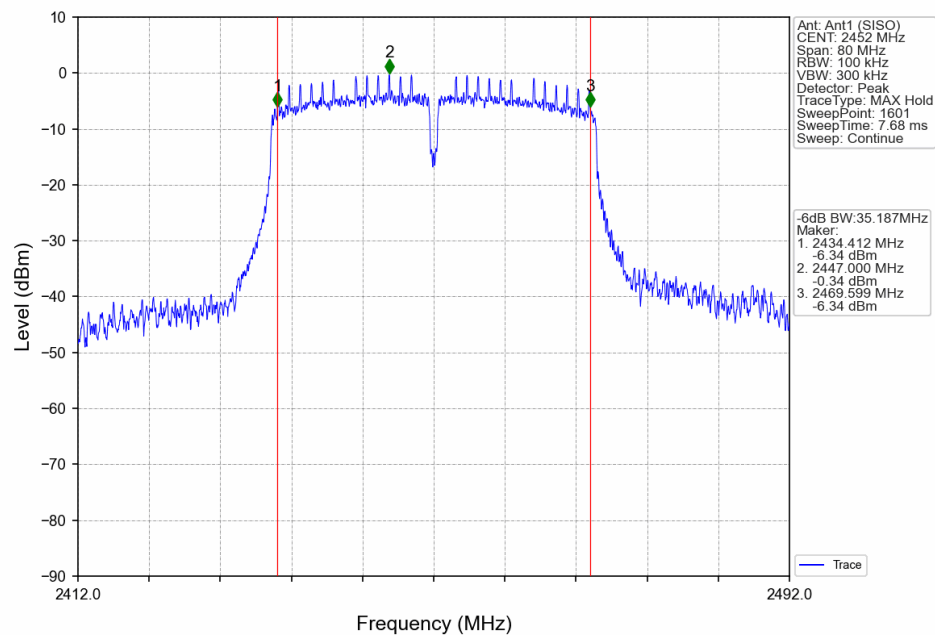
802.11n(HT40) LCH 2422MHz Ant1 (SISO) NTNV



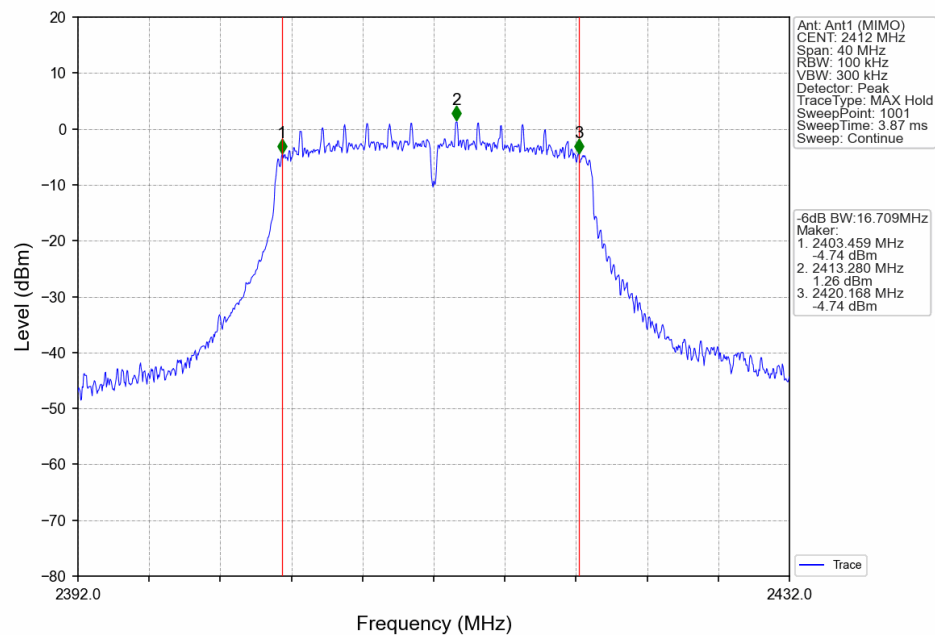
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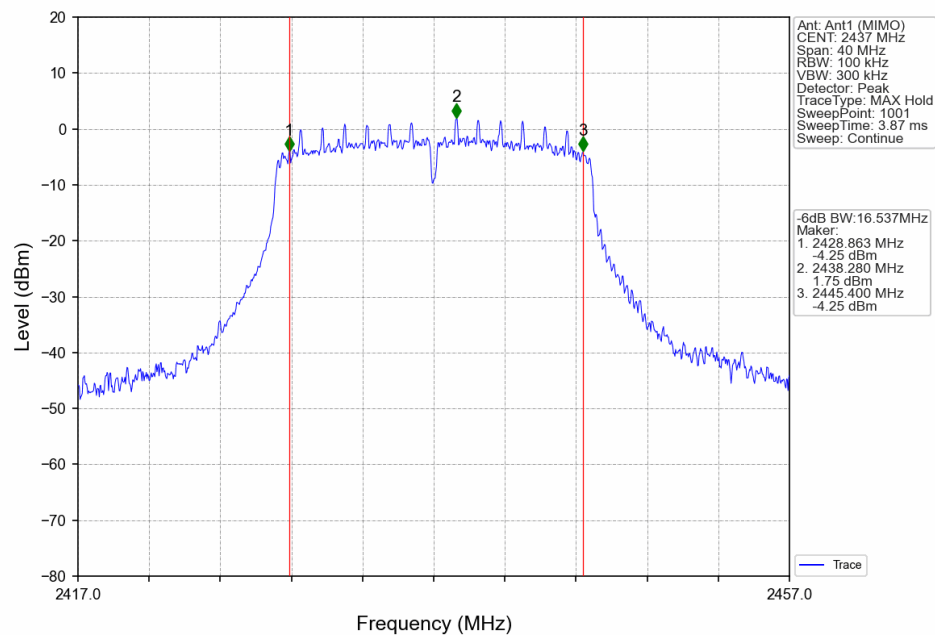
802.11n(HT40) HCH 2452MHz Ant1 (SISO) NTNV



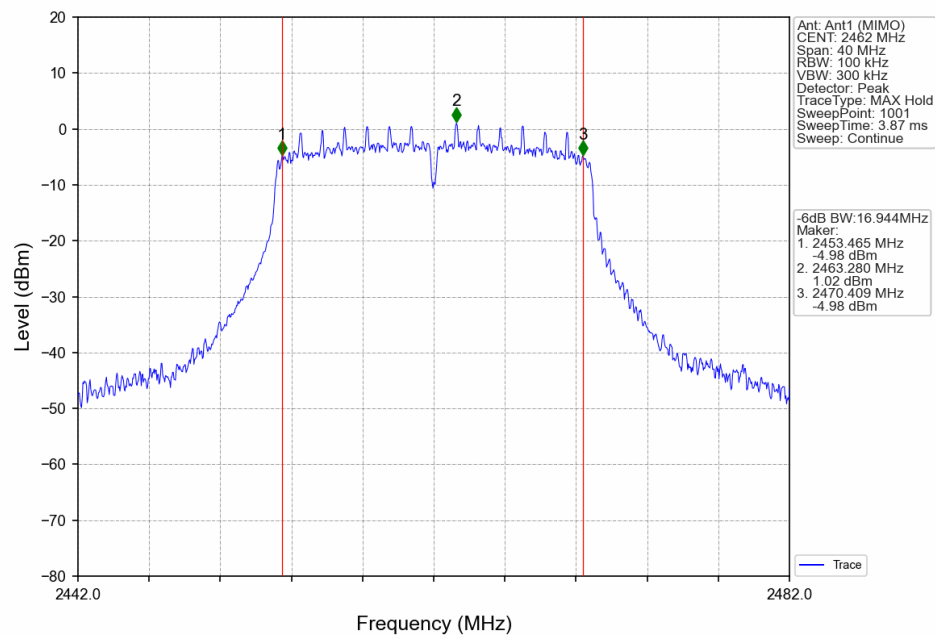
802.11n(HT20) LCH 2412MHz Ant1 (MIMO) NTNV



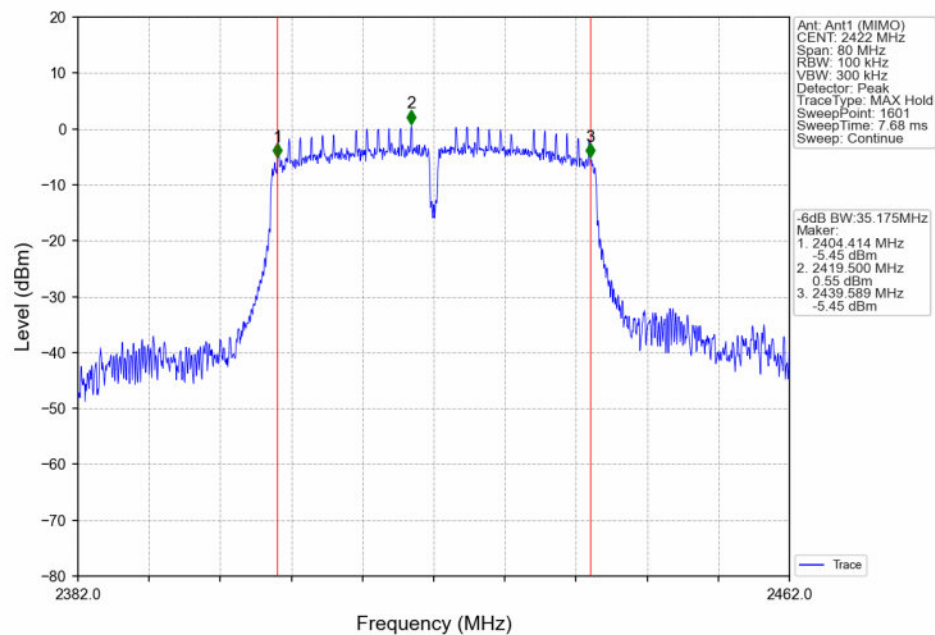
802.11n(HT20) MCH 2437MHz Ant1 (MIMO) NTNV



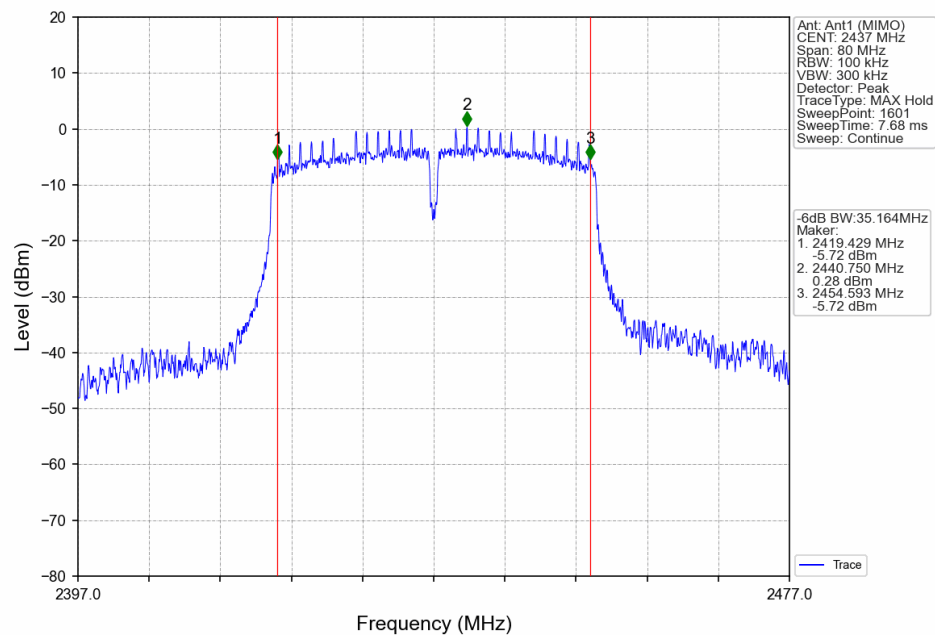
802.11n(HT20) HCH 2462MHz Ant1 (MIMO) NTNV



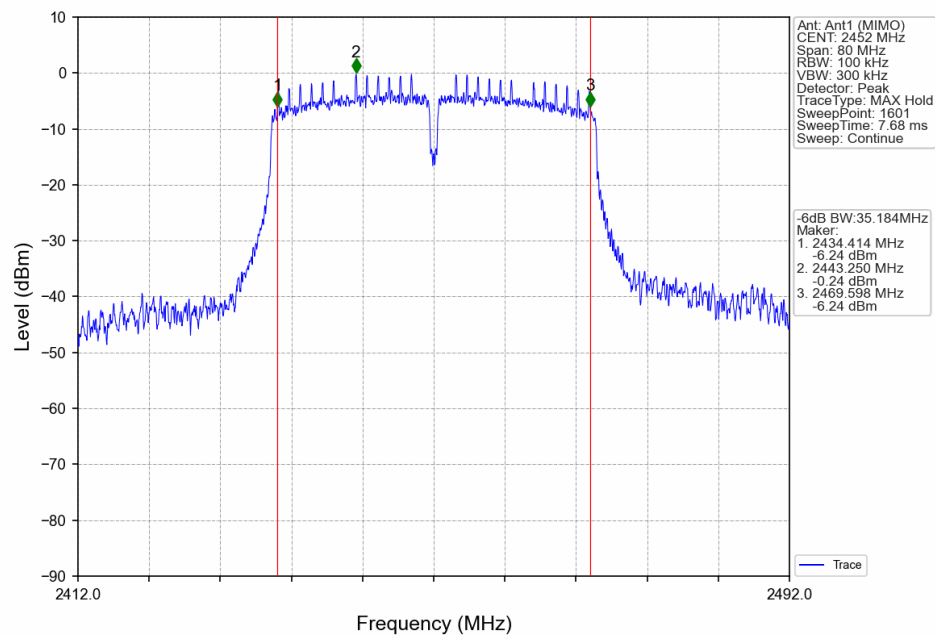
802.11n(HT40) LCH 2422MHz Ant1 (MIMO) NTNV

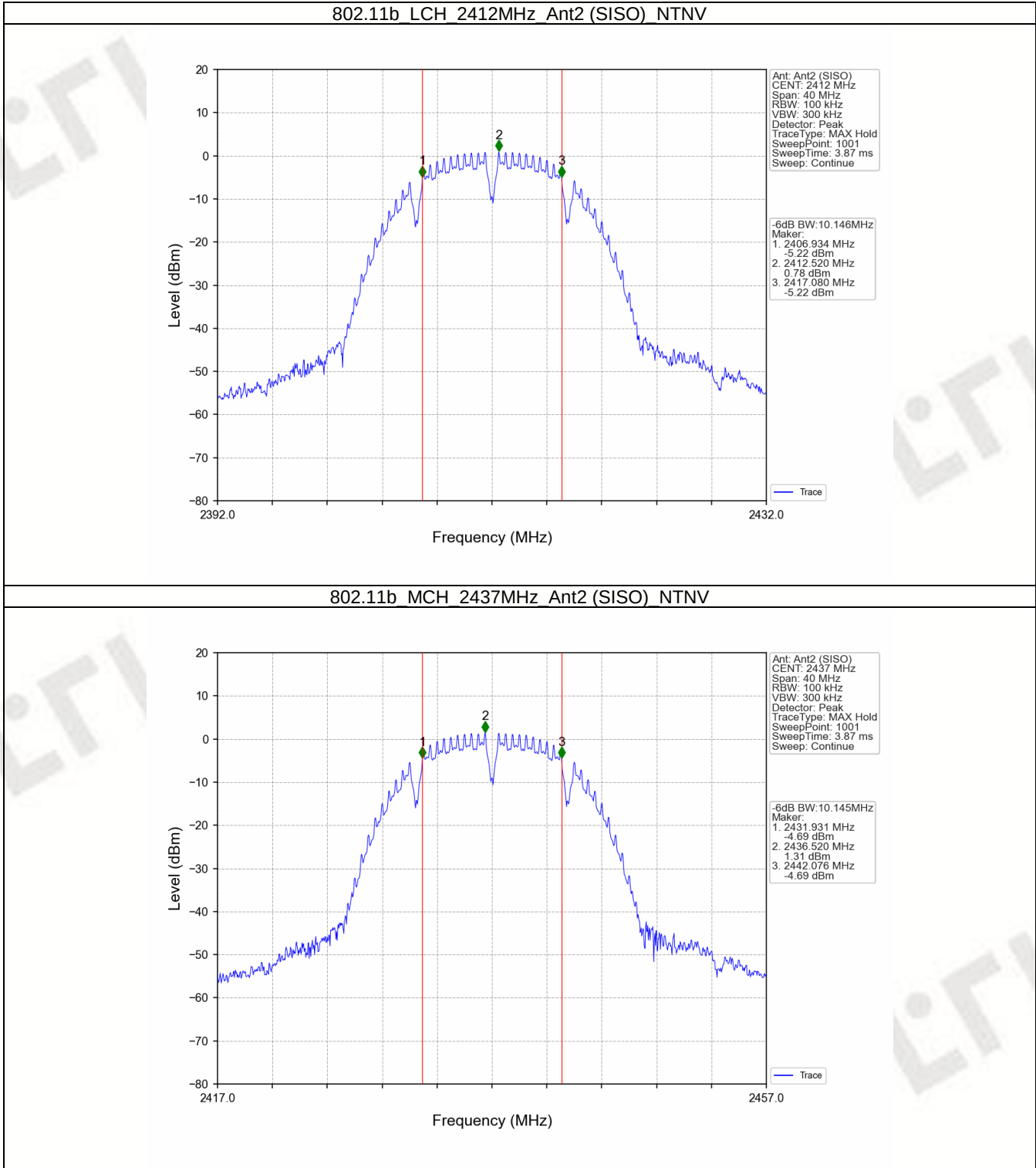


802.11n(HT40) MCH 2437MHz Ant1 (MIMO) NTNV

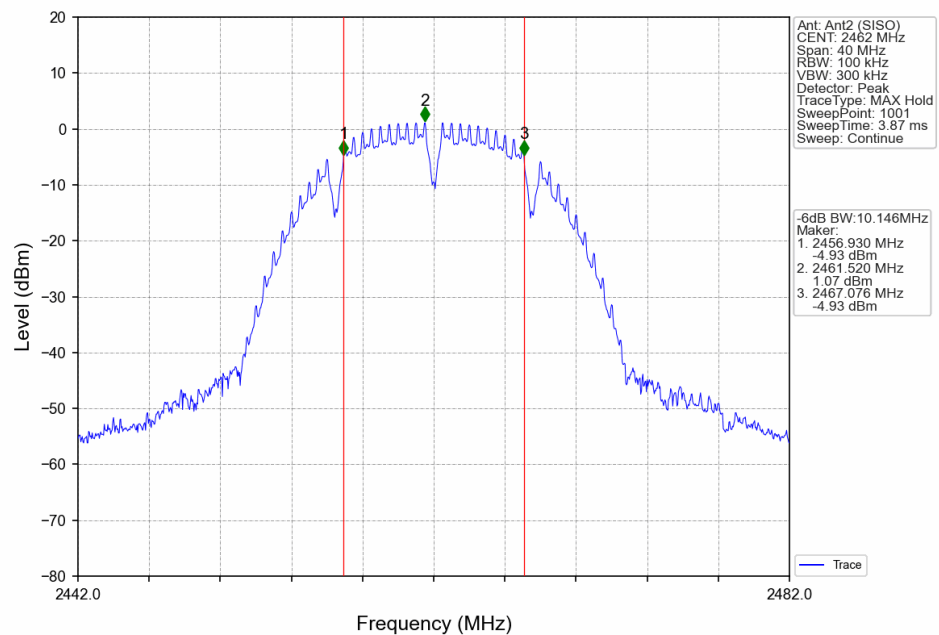


802.11n(HT40) HCH 2452MHz Ant1 (MIMO) NTNV

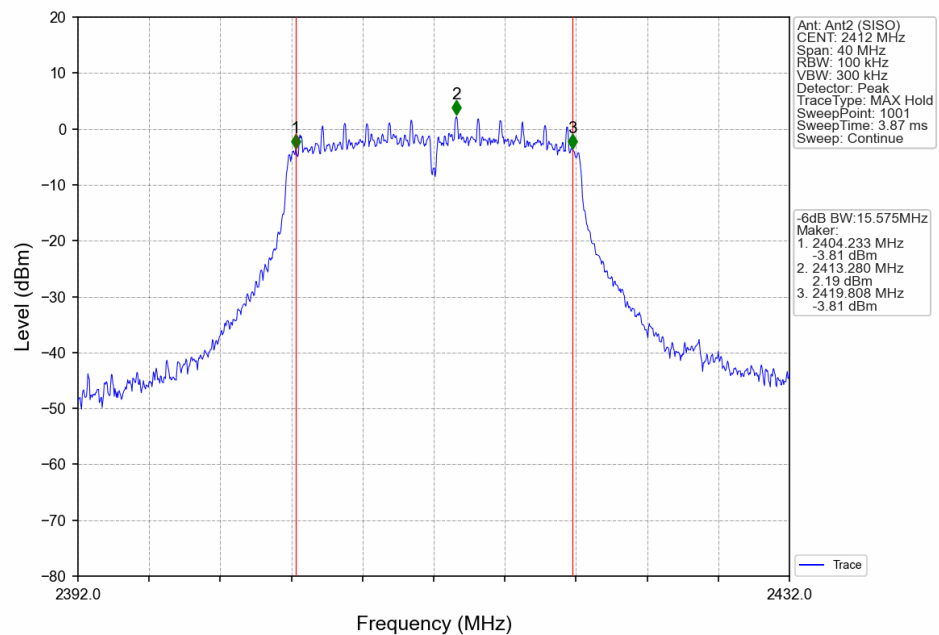




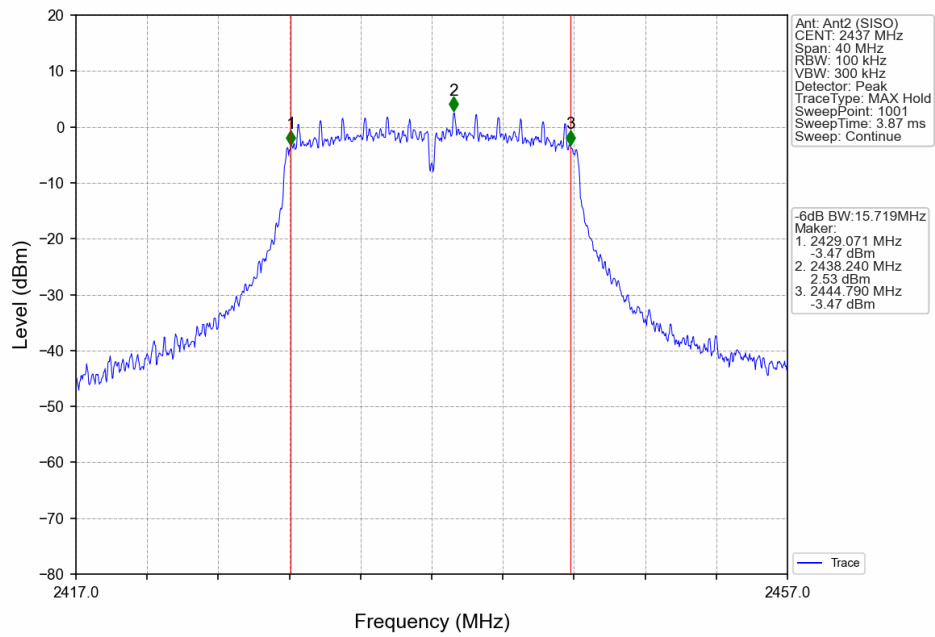
802.11b HCH 2462MHz Ant2 (SISO) NTN



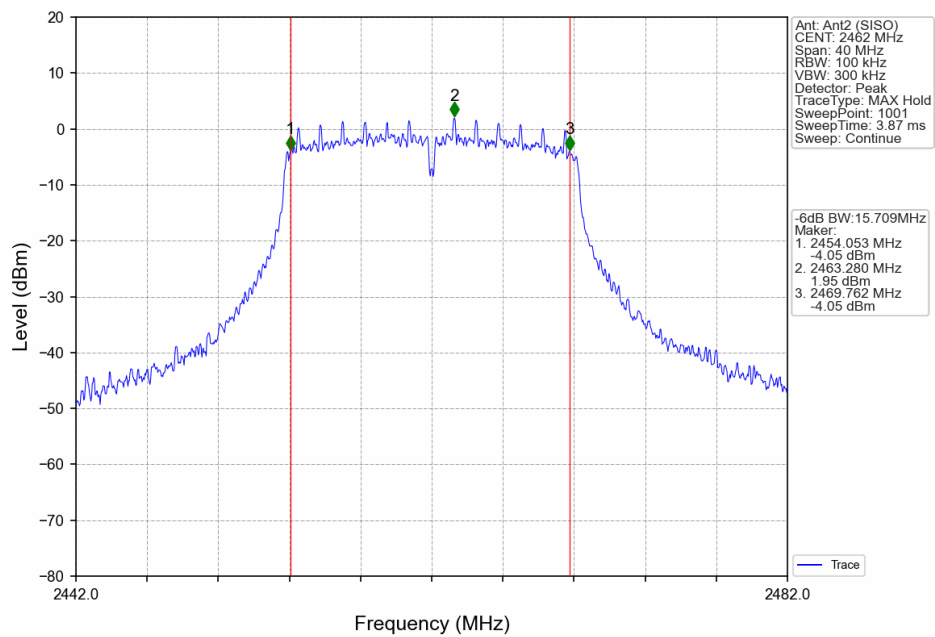
802.11g LCH 2412MHz Ant2 (SISO) NTN



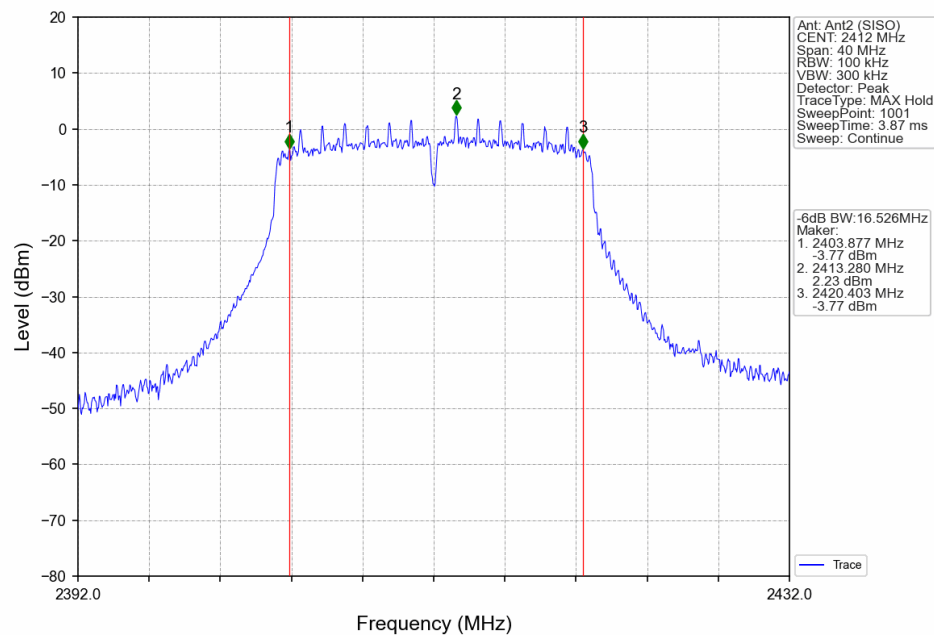
802.11g MCH 2437MHz Ant2 (SISO) NTN



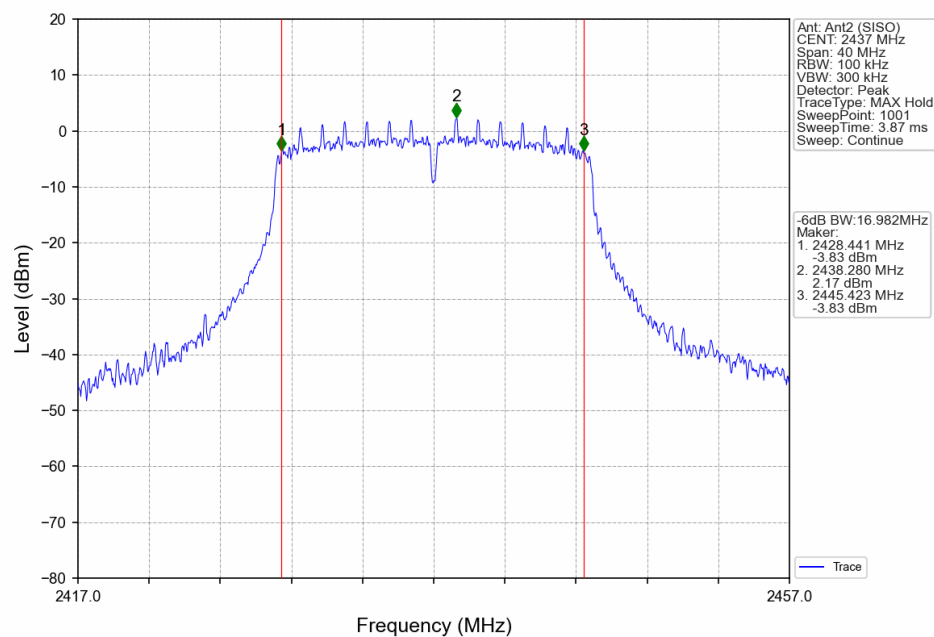
802.11g HCH 2462MHz Ant2 (SISO) NTN



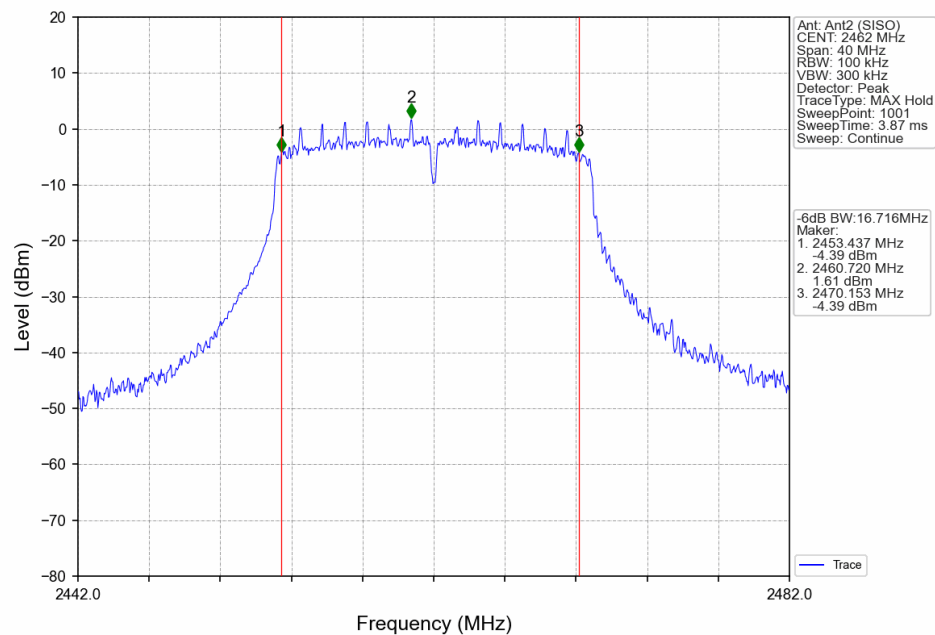
802.11n(HT20) LCH 2412MHz Ant2 (SISO) NTNV



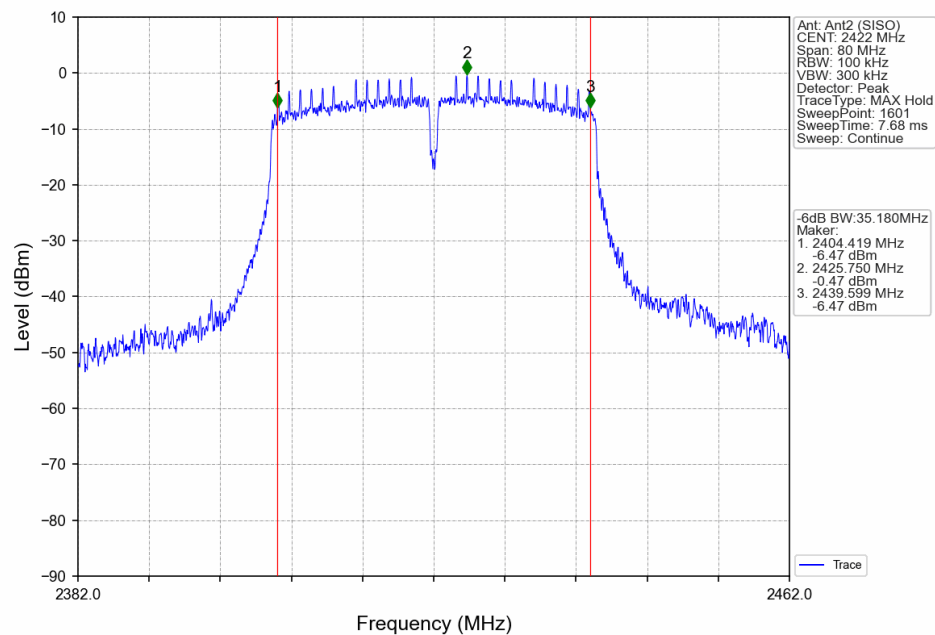
802.11n(HT20) MCH 2437MHz Ant2 (SISO) NTNV



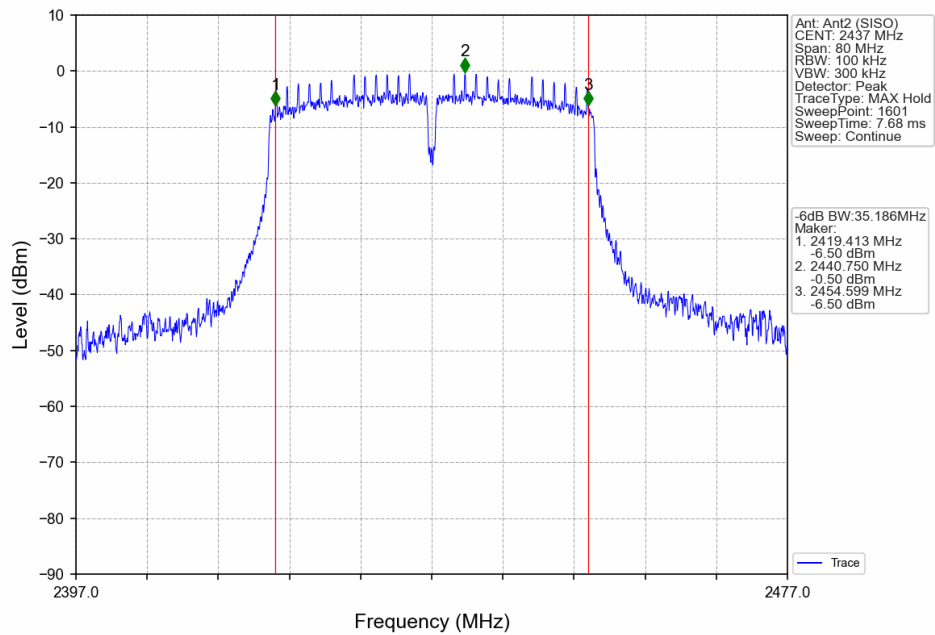
802.11n(HT20) HCH 2462MHz Ant2 (SISO) NTNV



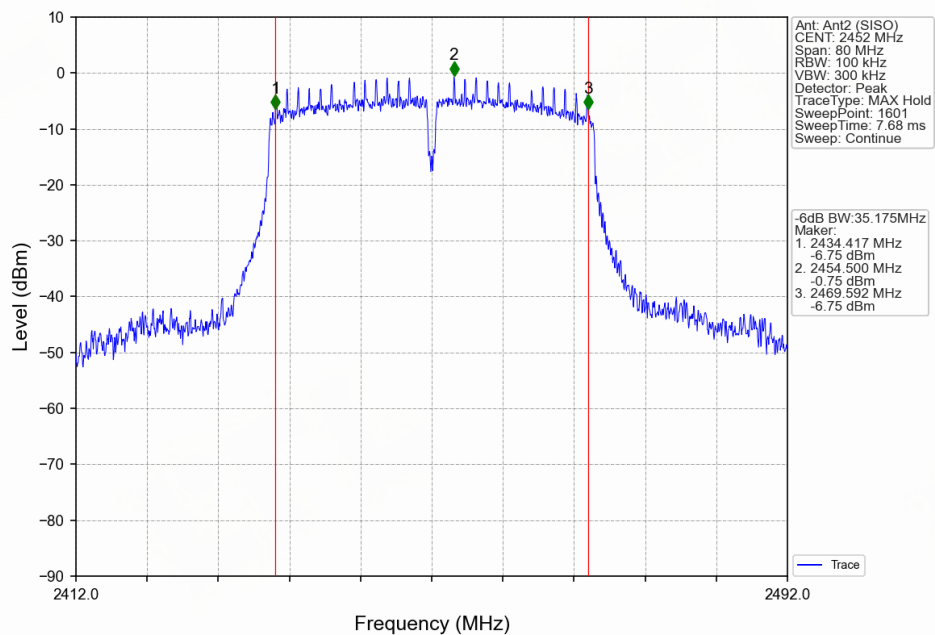
802.11n(HT40) LCH 2422MHz Ant2 (SISO) NTNV



802.11n(HT40) MCH 2437MHz Ant2 (SISO) NTNV



802.11n(HT40) HCH 2452MHz Ant2 (SISO) NTNV



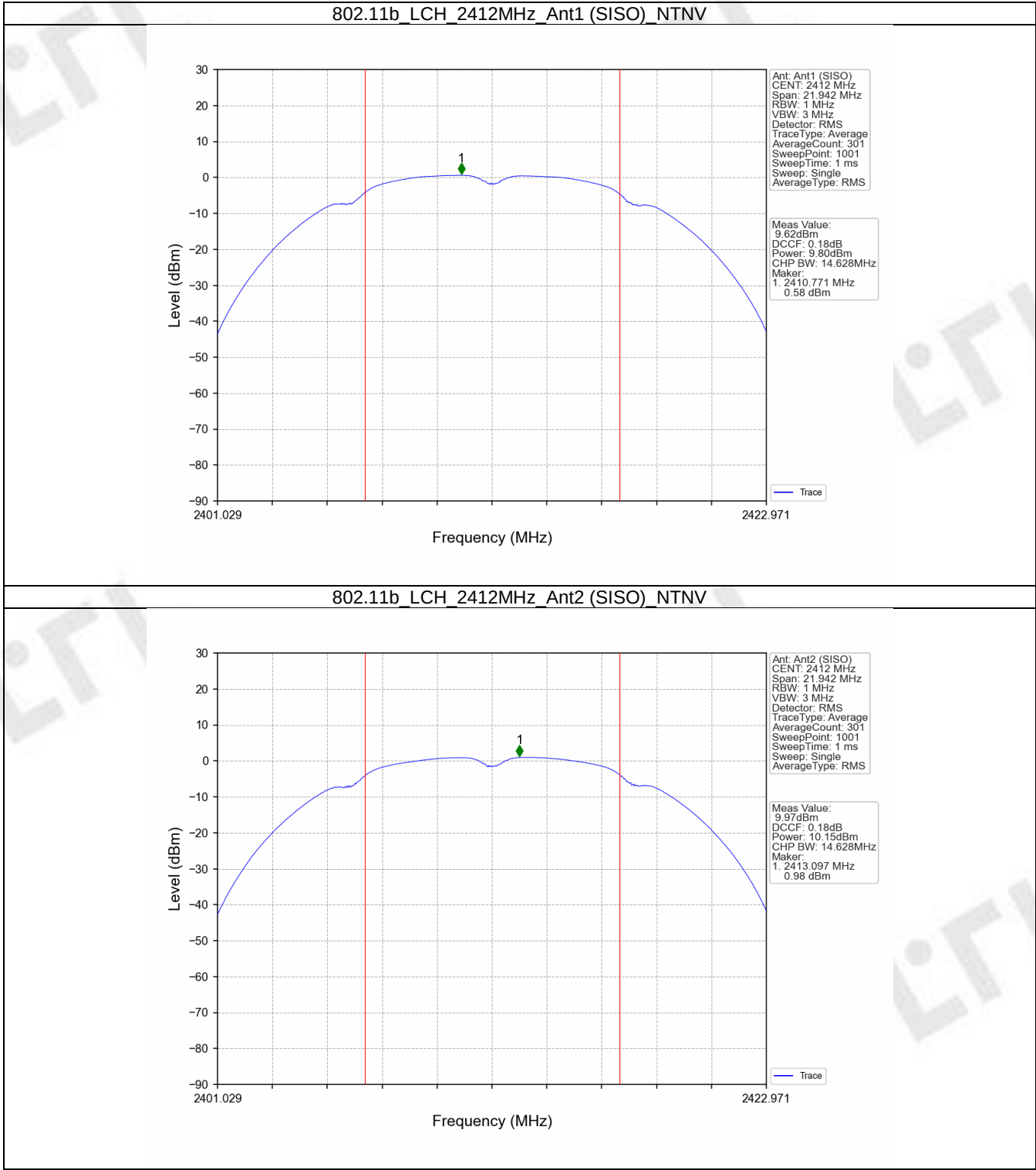
2. Maximum Conducted Output Power

2.1 Power

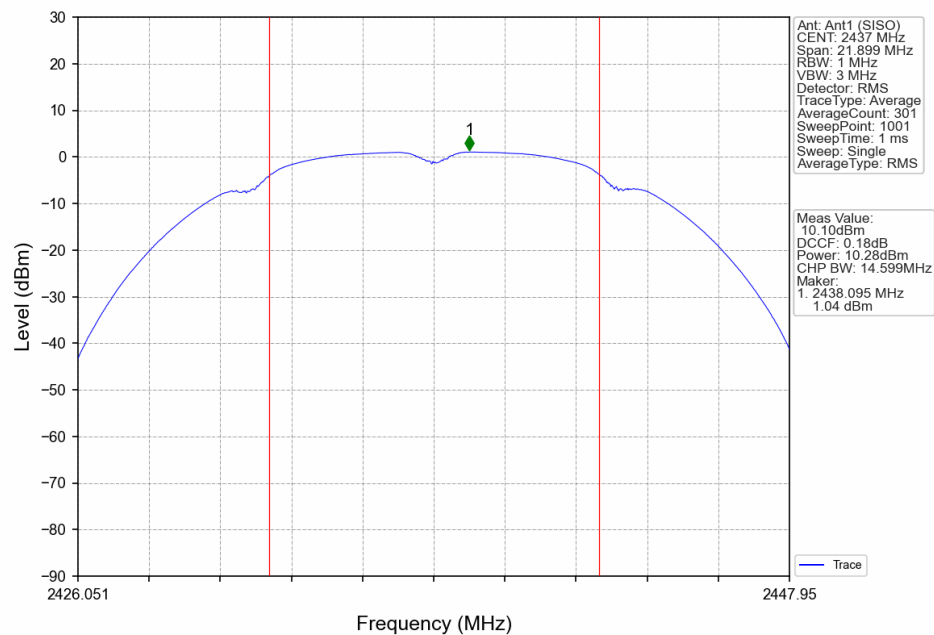
2.1.1 Test Result

Mode	TX Type	Frequency (MHz)	Maximum Average Conducted Output Power (dBm)				Verdict
			ANT1	ANT2	MIMO	Limit	
802.11b	SISO	2412	9.80	10.15	/	<=30	Pass
		2437	10.28	10.56	/	<=30	Pass
		2462	10.03	10.40	/	<=30	Pass
802.11g	SISO	2412	13.04	12.76	/	<=30	Pass
		2437	13.43	13.10	/	<=30	Pass
		2462	13.02	12.74	/	<=30	Pass
802.11n (HT20)	SISO	2412	12.82	12.51	/	<=30	Pass
		2437	13.46	13.14	/	<=30	Pass
		2462	12.97	12.57	/	<=30	Pass
802.11n (HT40)	SISO	2422	14.78	13.87	/	<=30	Pass
		2437	13.27	14.92	/	<=30	Pass
		2452	13.43	13.08	/	<=30	Pass
802.11n (HT20)	MIMO	2412	12.04	12.38	15.22	<=30	Pass
		2437	12.20	13.07	15.67	<=30	Pass
		2462	11.58	12.40	15.02	<=30	Pass
802.11n (HT40)	MIMO	2422	14.08	13.17	16.66	<=30	Pass
		2437	13.74	13.20	16.49	<=30	Pass
		2452	13.62	12.72	16.20	<=30	Pass
Note1: Antenna Gain: Ant1: 2.50dBi; Ant2: 2.50dBi; Note2: Directional Gain: 5.5dBi							

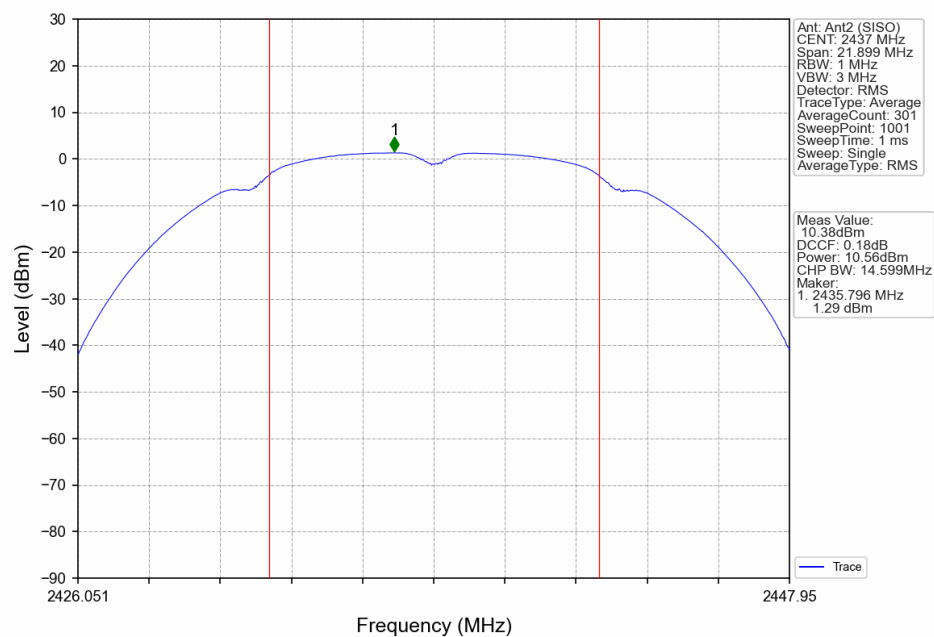
2.1.1.2 Test Graph



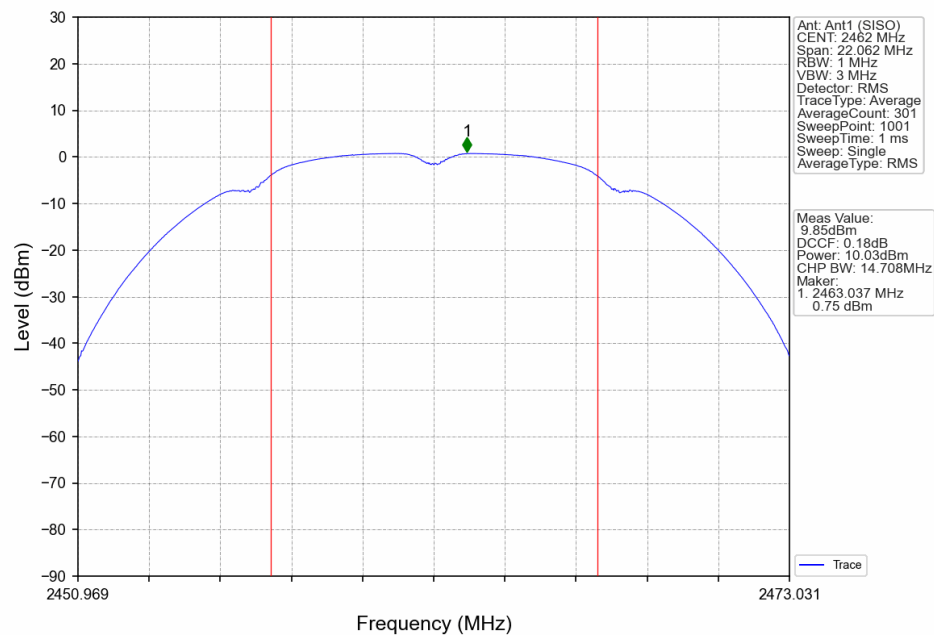
802.11b MCH 2437MHz Ant1 (SISO) NTN



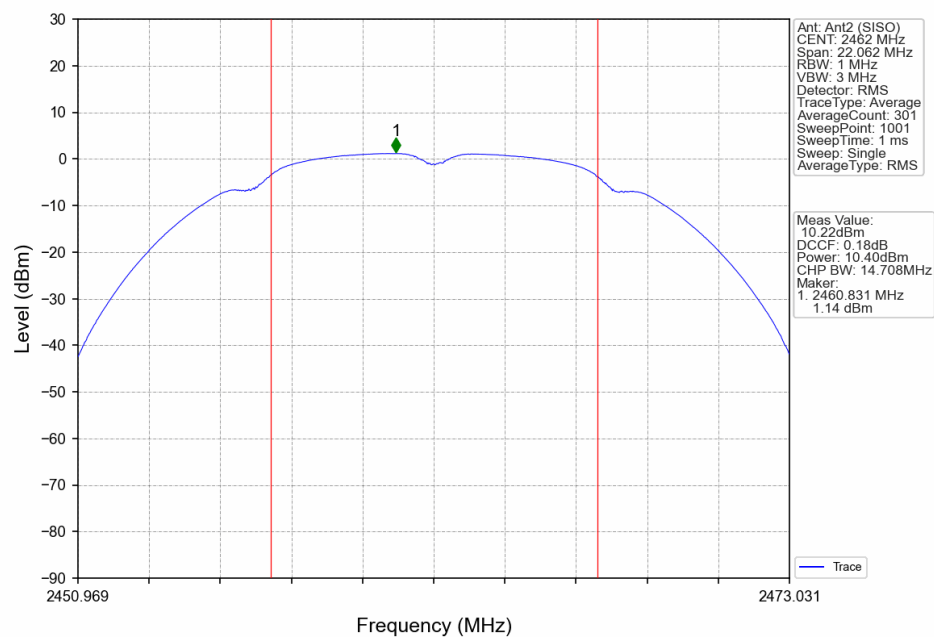
802.11b MCH 2437MHz Ant2 (SISO) NTN



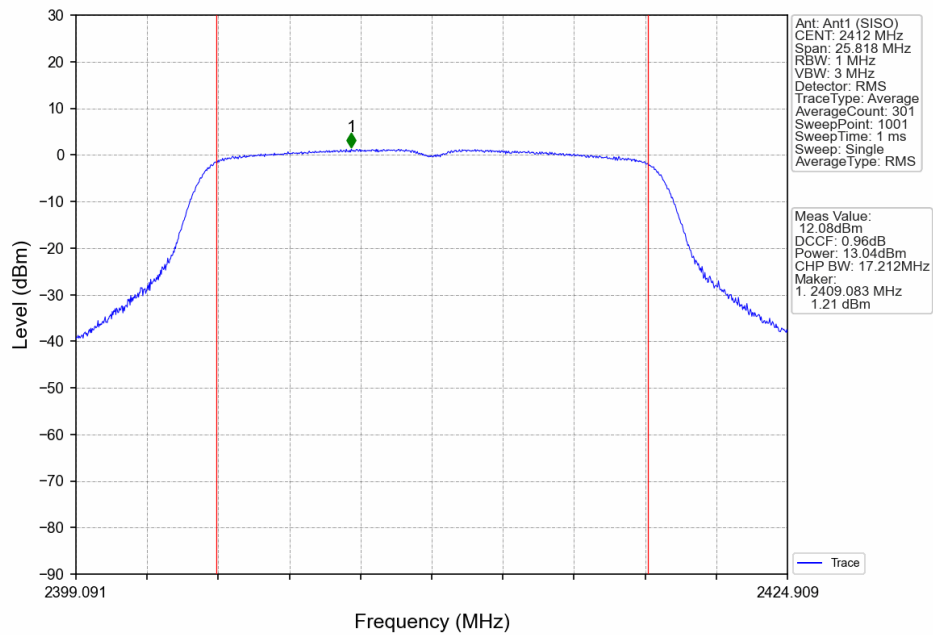
802.11b HCH 2462MHz Ant1 (SISO) NTN



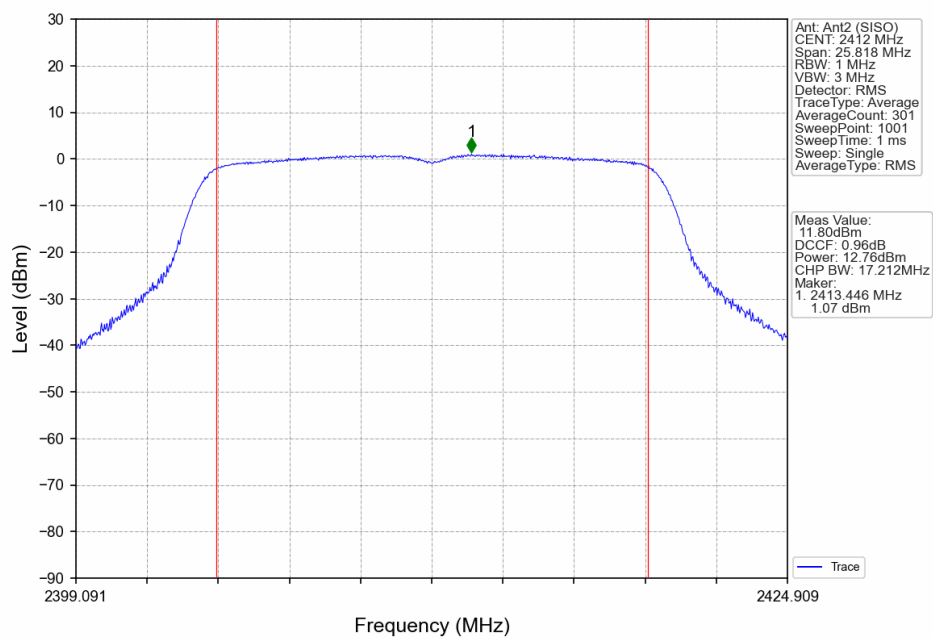
802.11b HCH 2462MHz Ant2 (SISO) NTN



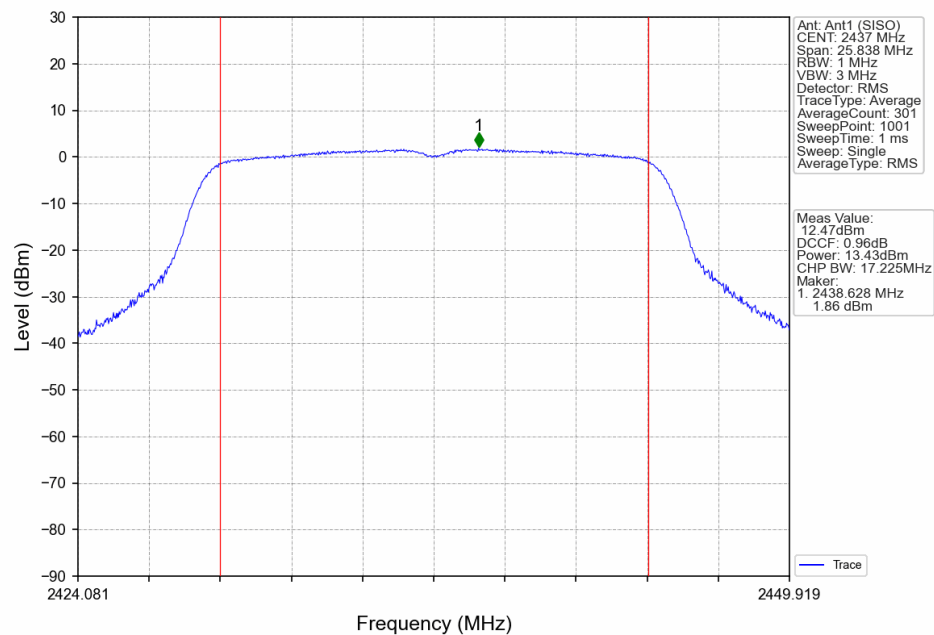
802.11g LCH 2412MHz Ant1 (SISO) NTN



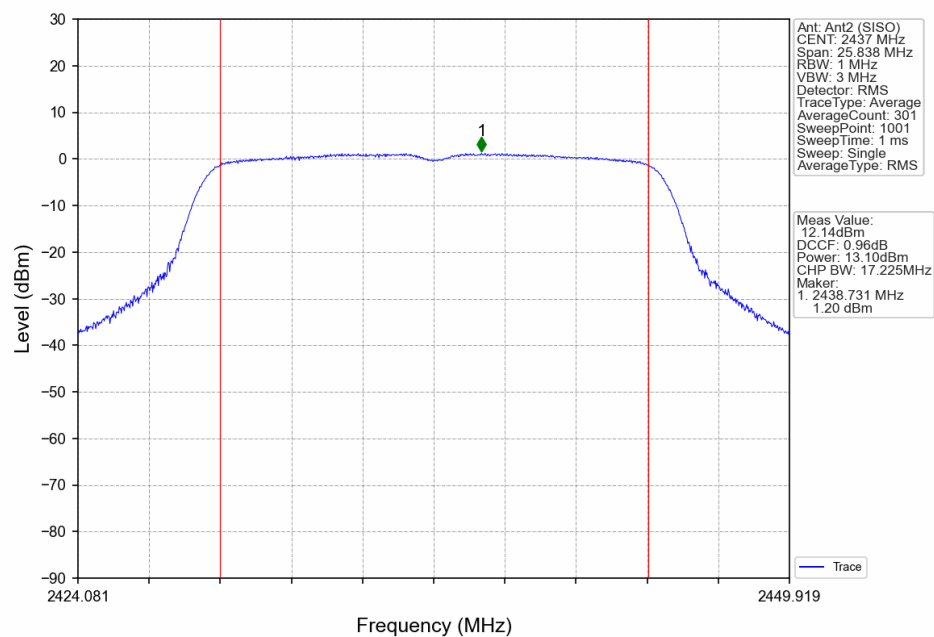
802.11g LCH 2412MHz Ant2 (SISO) NTN



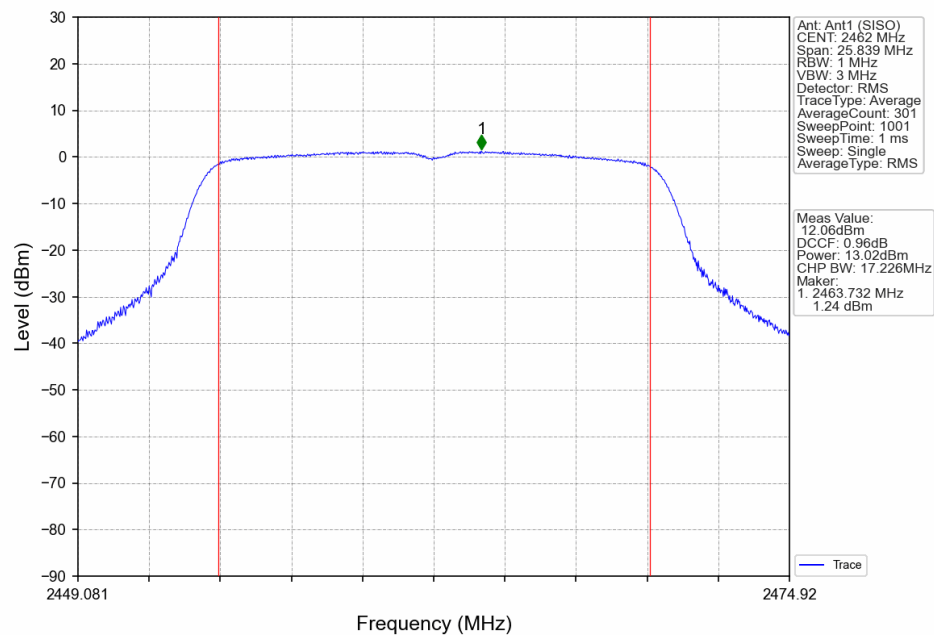
802.11g MCH 2437MHz Ant1 (SISO) NTN



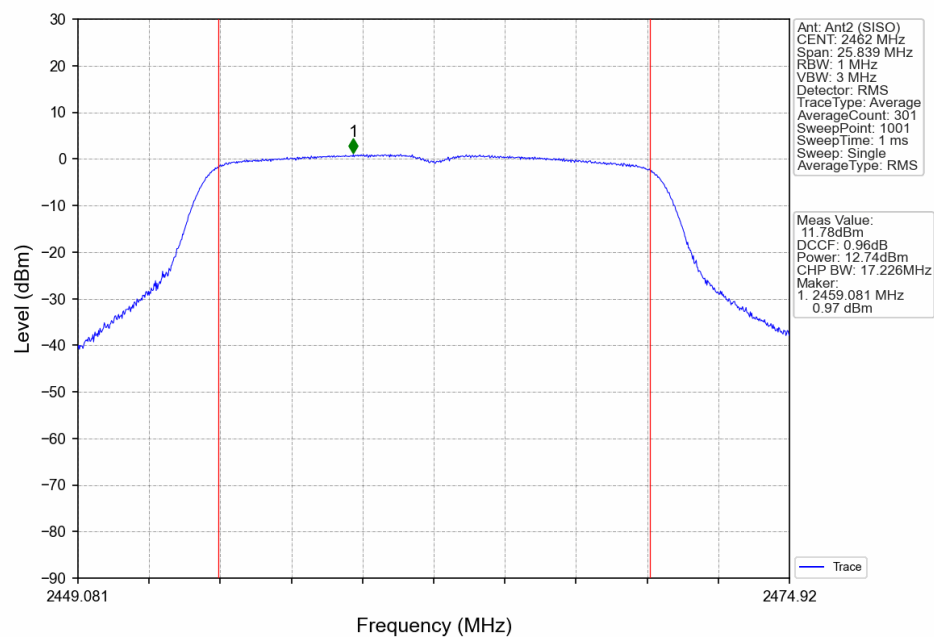
802.11g MCH 2437MHz Ant2 (SISO) NTN



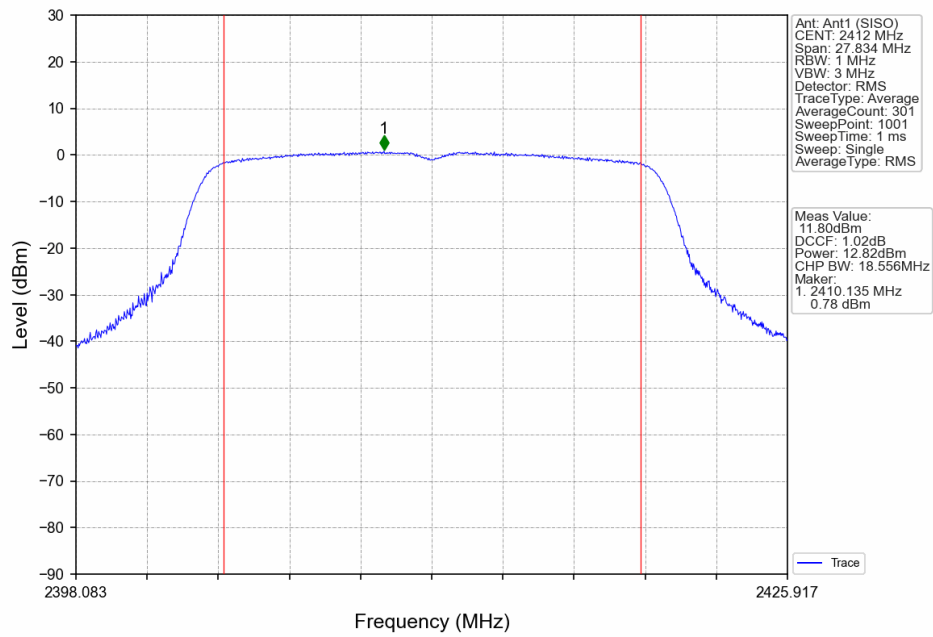
802.11g HCH 2462MHz Ant1 (SISO) NTN



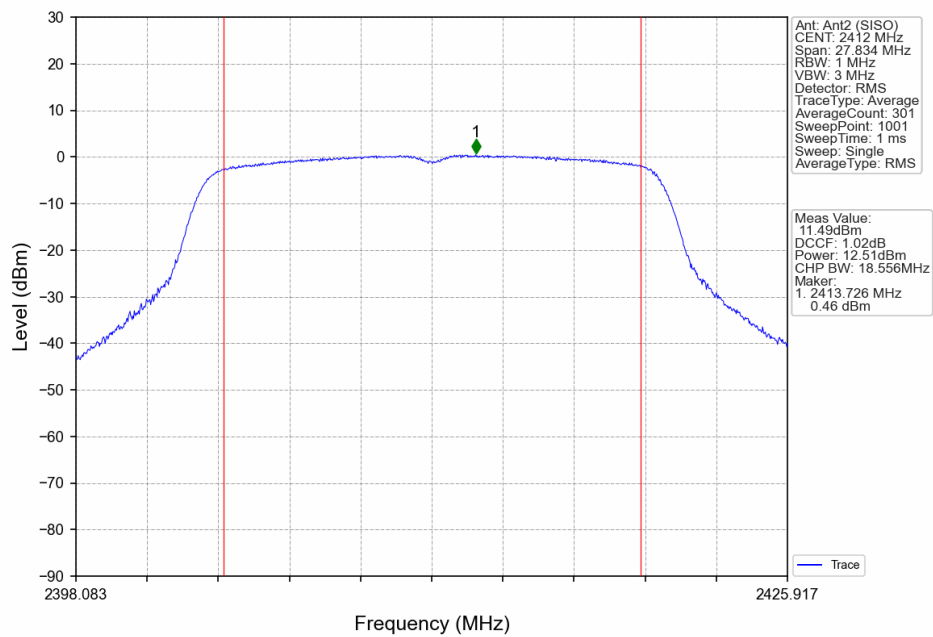
802.11g HCH 2462MHz Ant2 (SISO) NTN



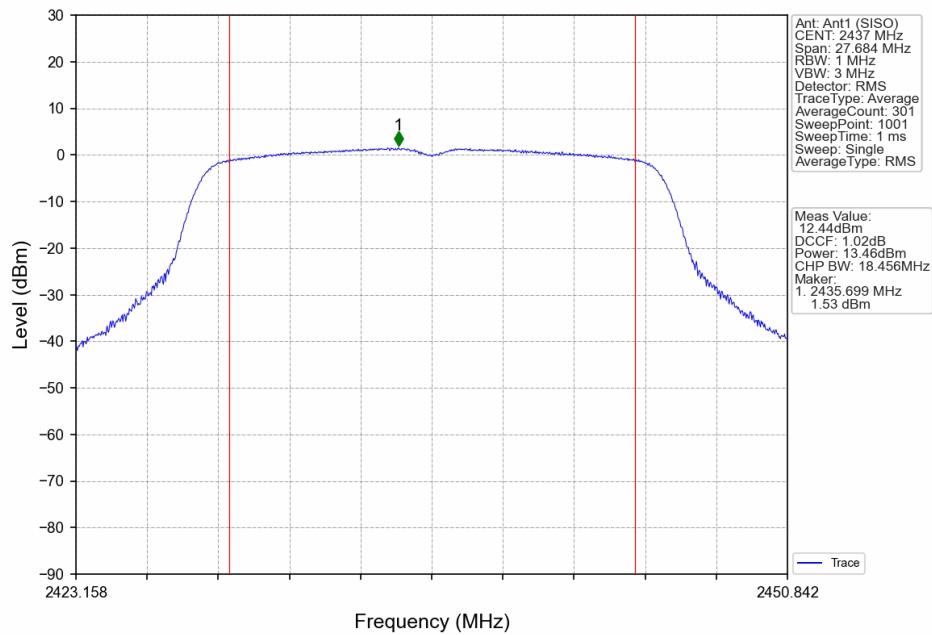
802.11n(HT20) LCH 2412MHz Ant1 (SISO) NTNV



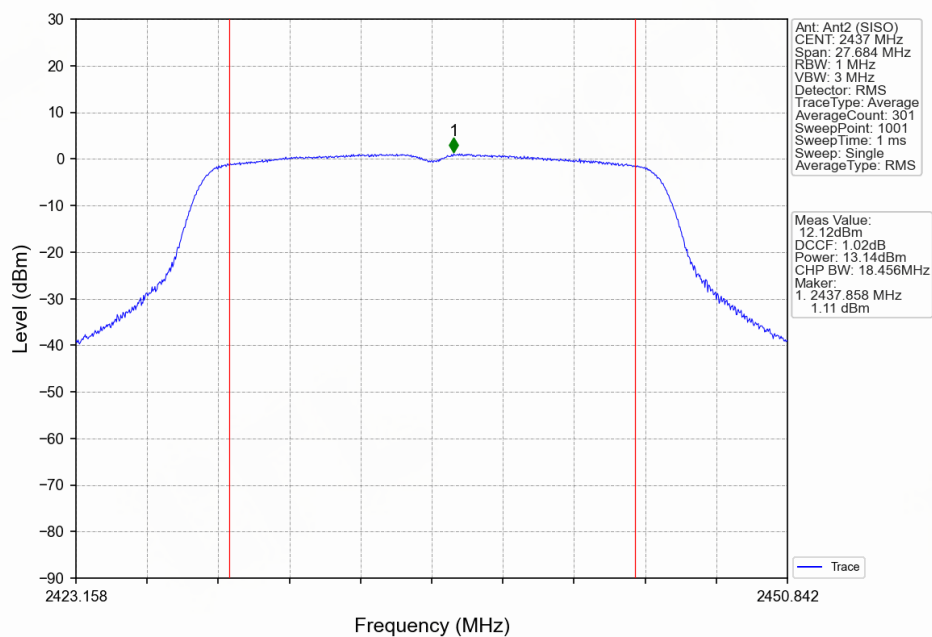
802.11n(HT20) LCH 2412MHz Ant2 (SISO) NTNV



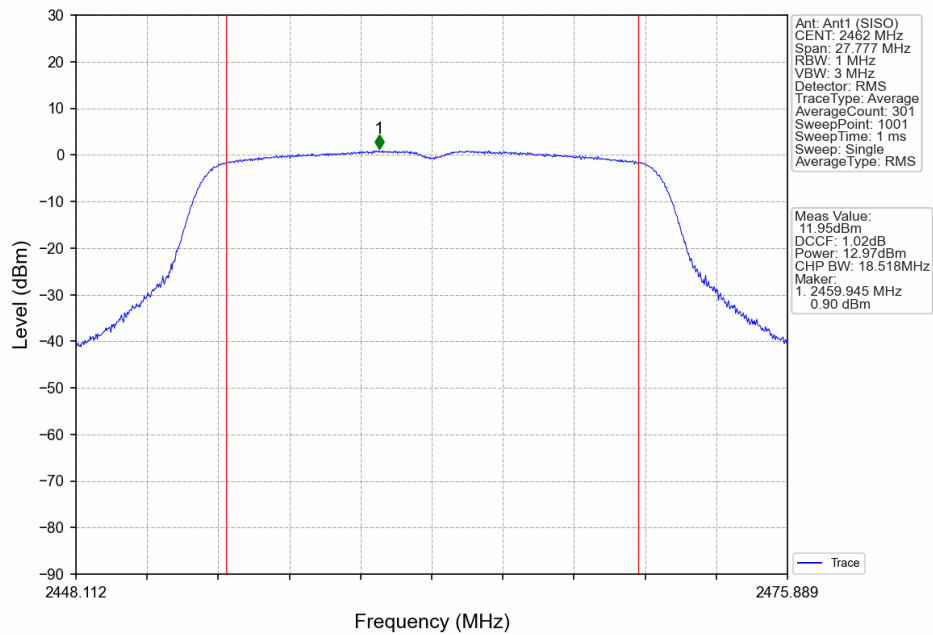
802.11n(HT20) MCH 2437MHz Ant1 (SISO) NTNV



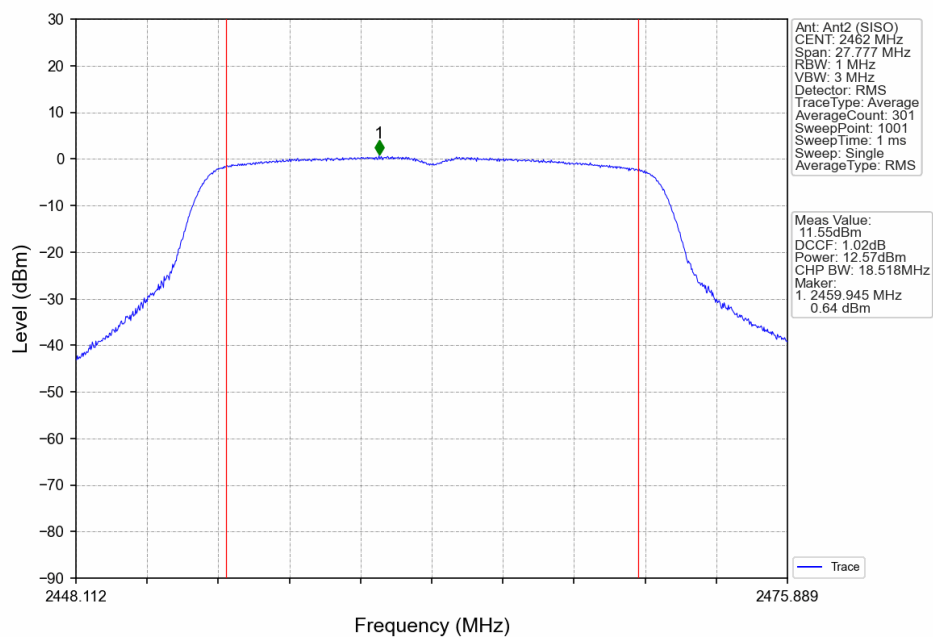
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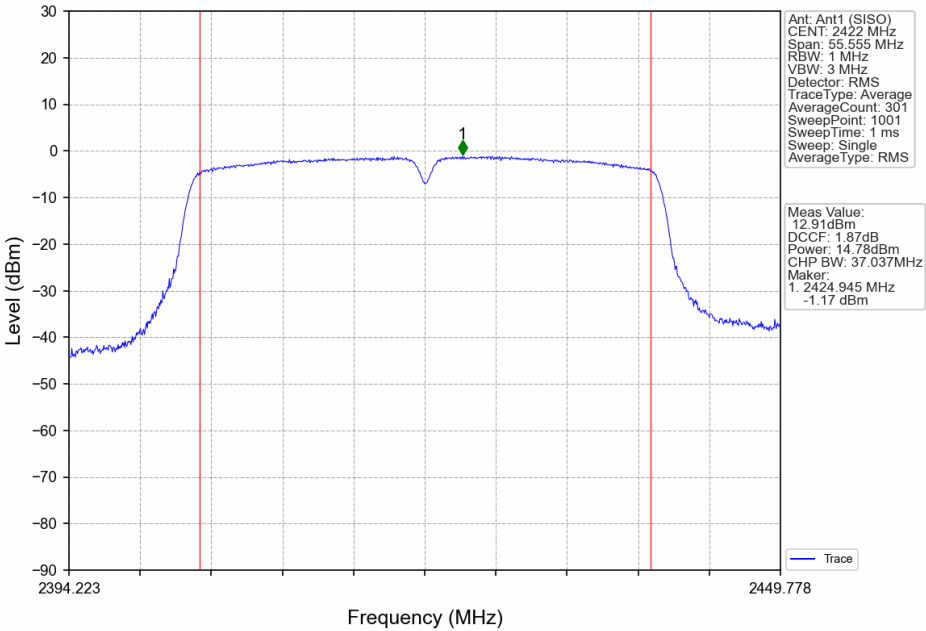
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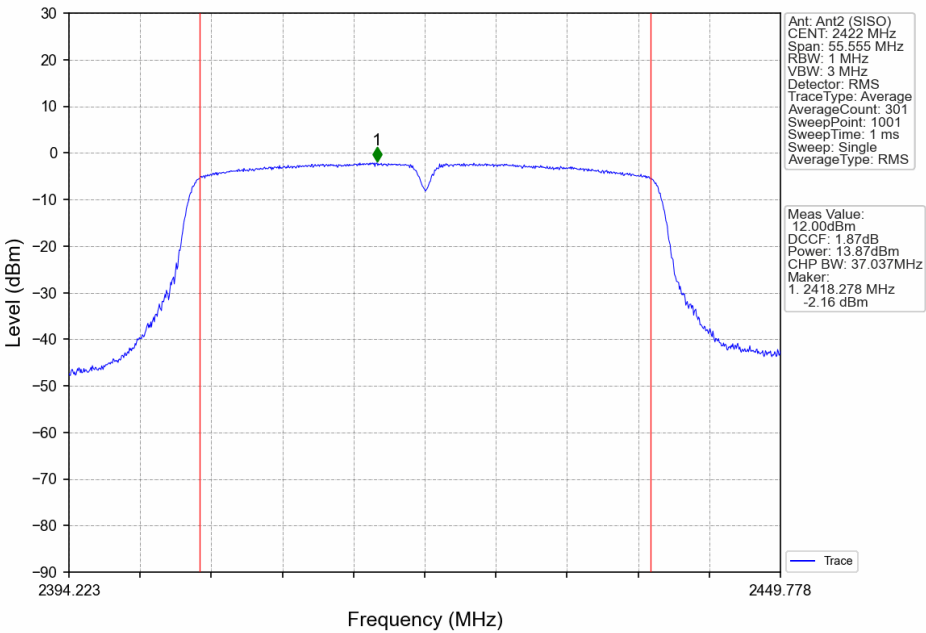
802.11n(HT20) HCH 2462MHz Ant2 (SISO) NTNV



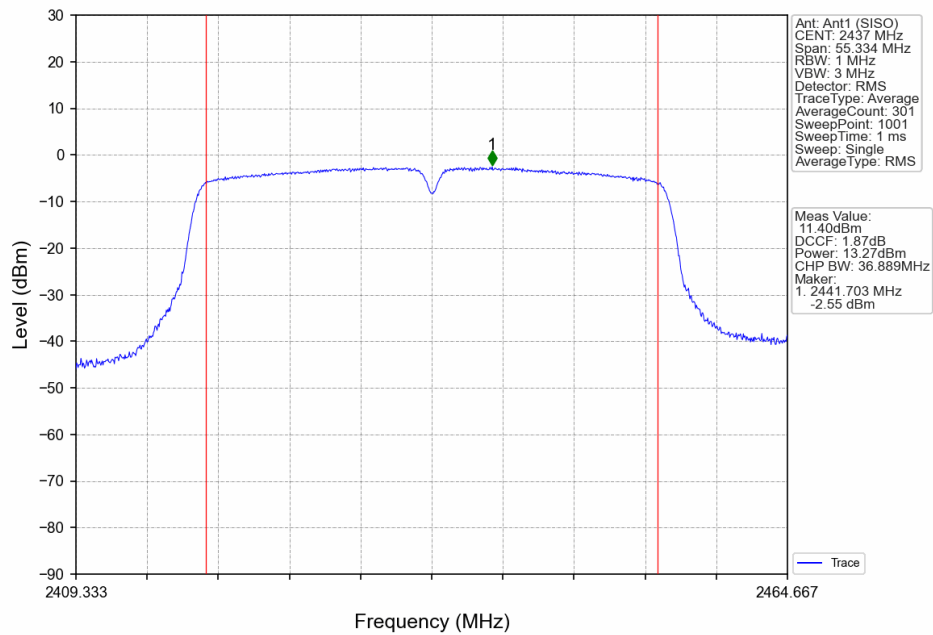
802.11n(HT40) LCH 2422MHz Ant1 (SISO) NTN



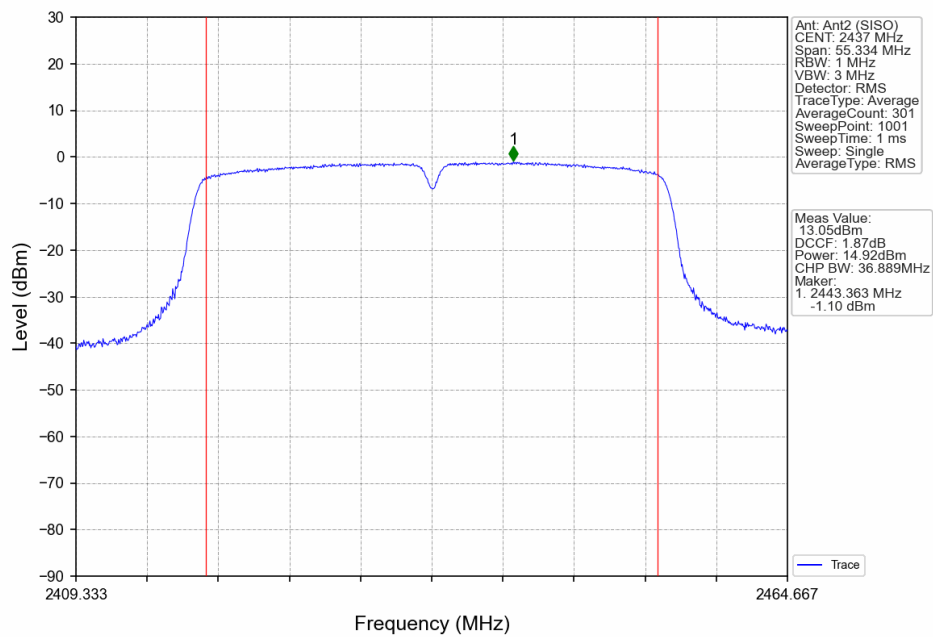
802.11n(HT40) LCH 2422MHz Ant2 (SISO) NTN



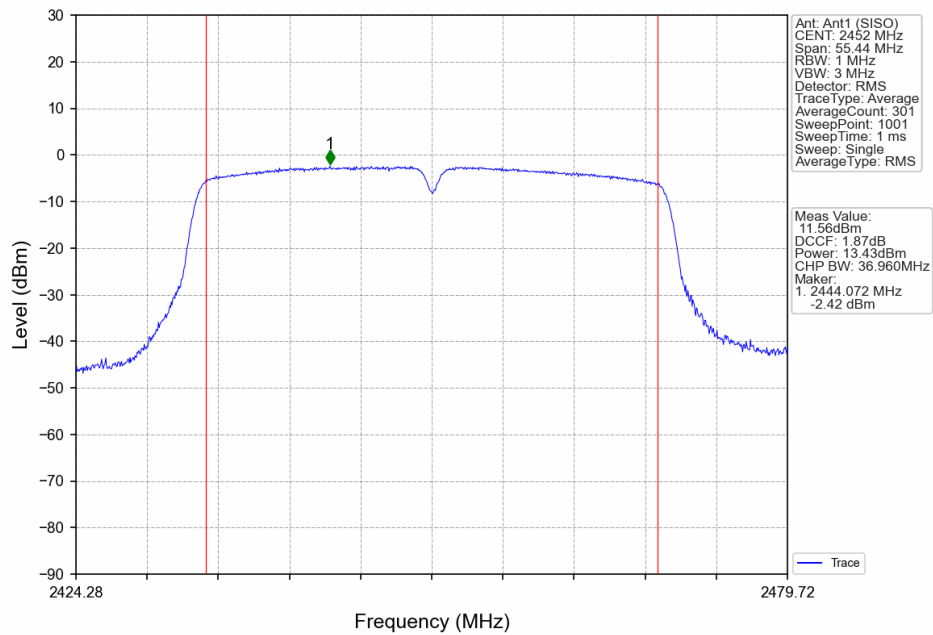
802.11n(HT40) MCH 2437MHz Ant1 (SISO) NTNV



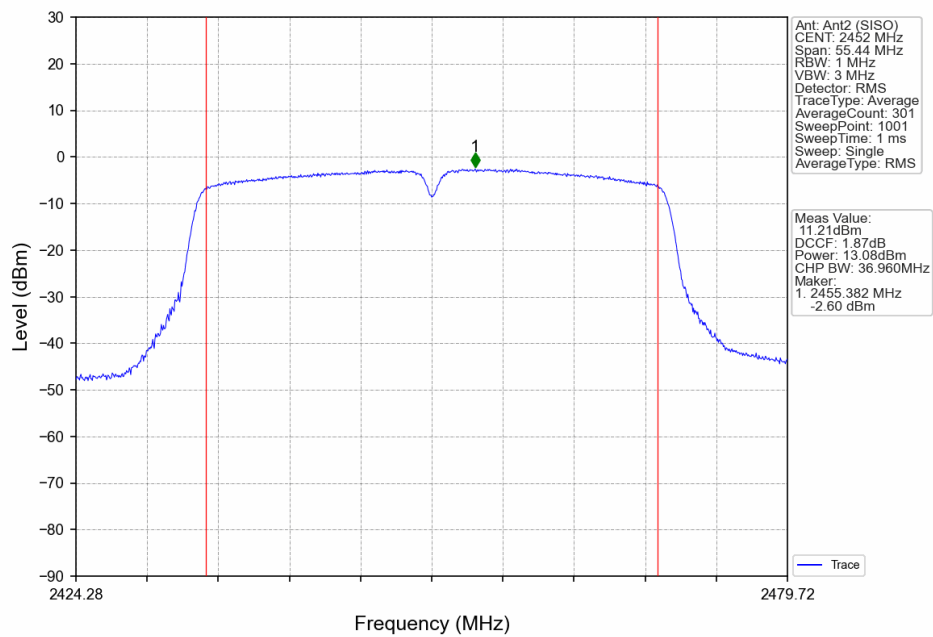
802.11n(HT40) MCH 2437MHz Ant2 (SISO) NTNV



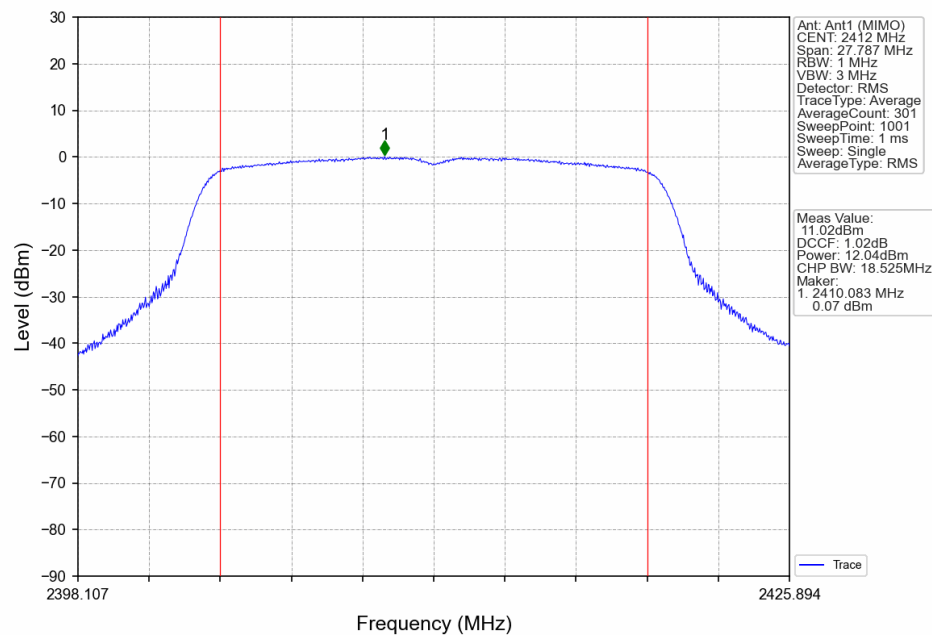
802.11n(HT40) HCH 2452MHz Ant1 (SISO) NTN



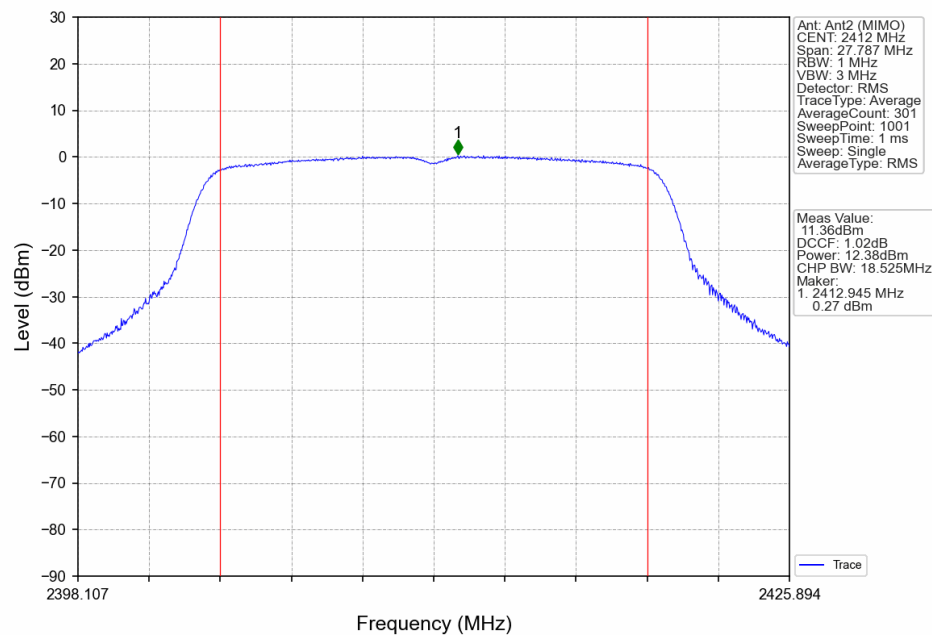
802.11n(HT40) HCH 2452MHz Ant2 (SISO) NTN



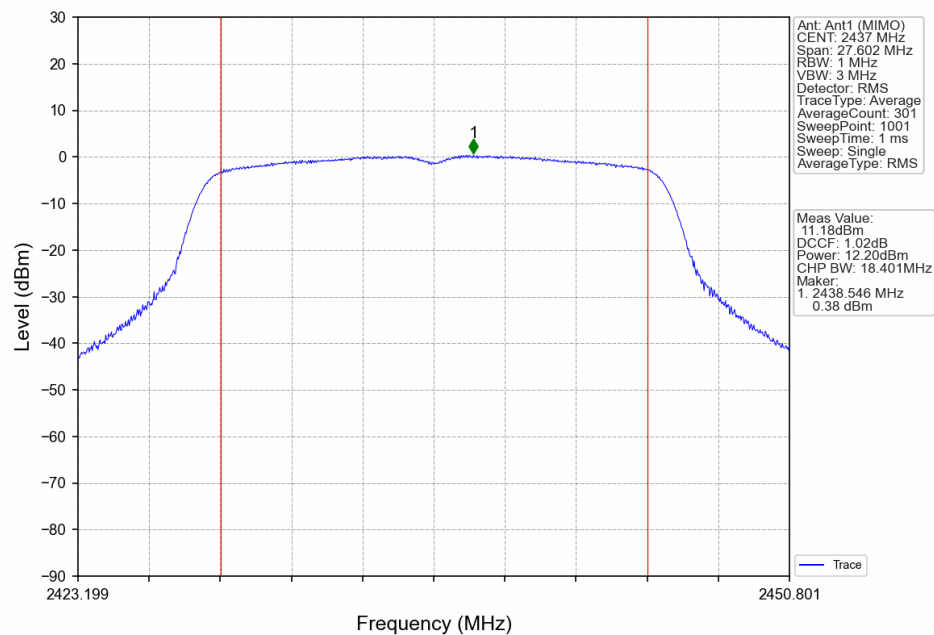
802.11n(HT20) LCH 2412MHz Ant1 (MIMO) NTNV



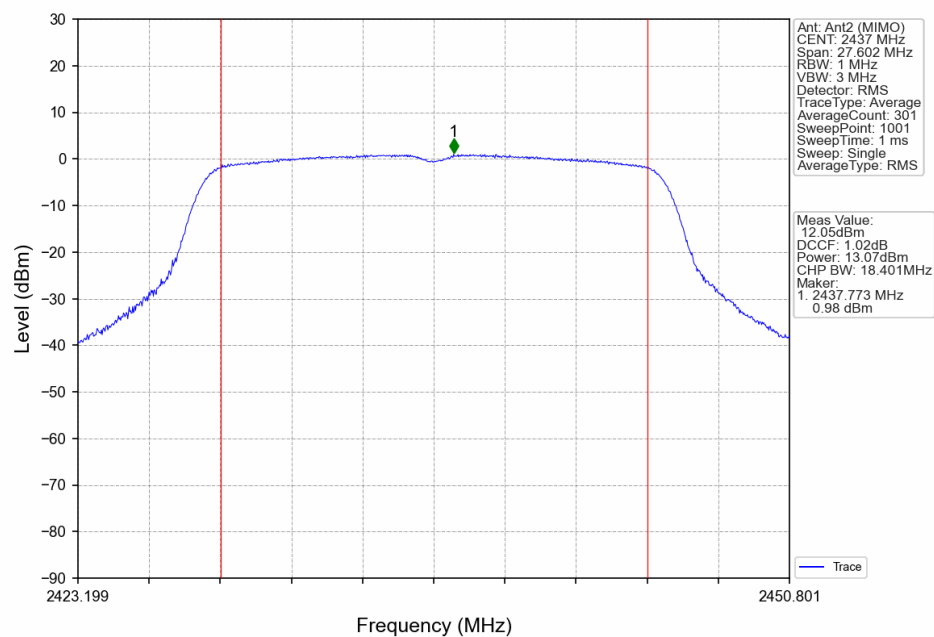
802.11n(HT20) LCH 2412MHz Ant2 (MIMO) NTNV



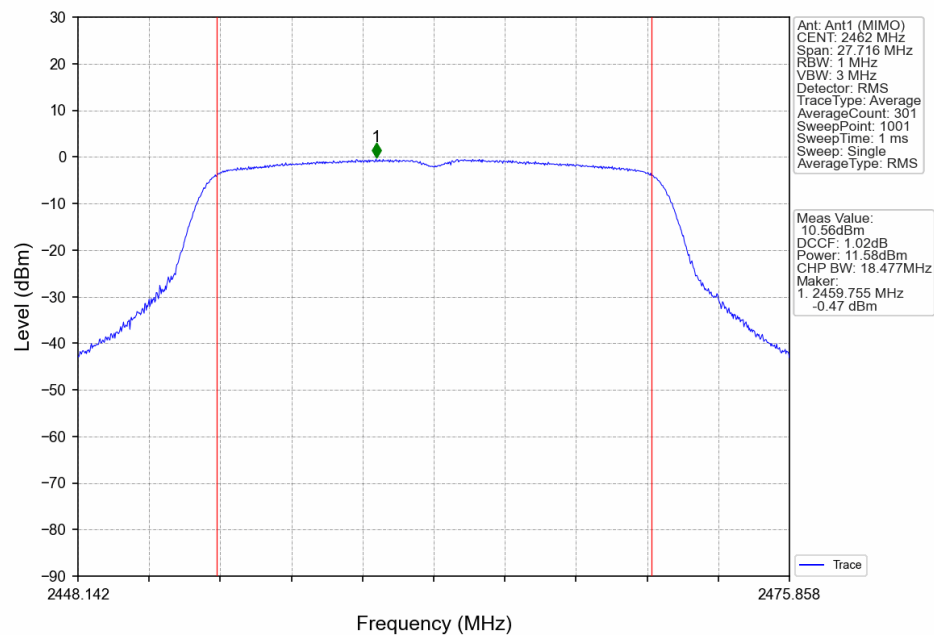
802.11n(HT20) MCH 2437MHz Ant1 (MIMO) NTNV



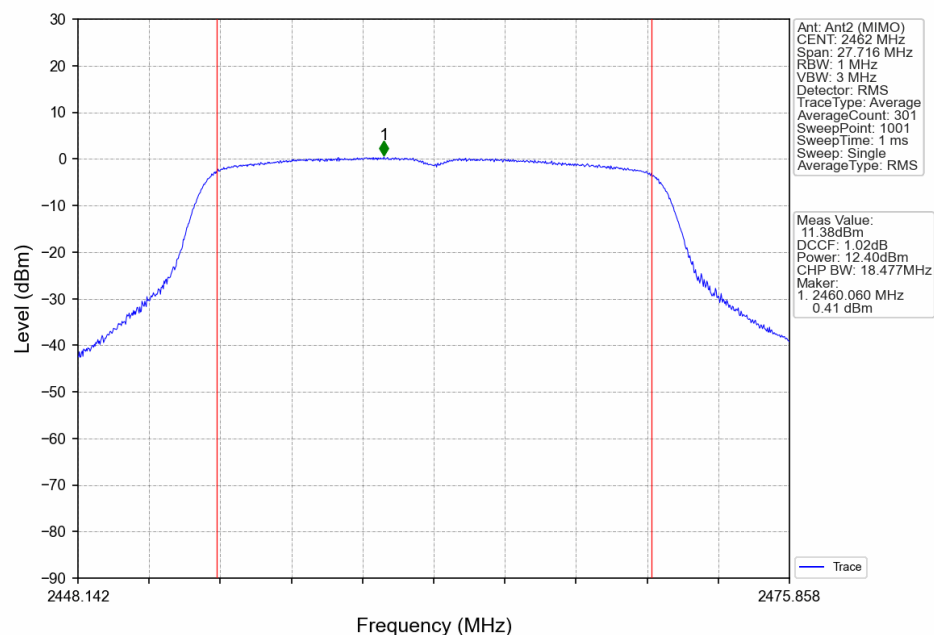
802.11n(HT20) MCH 2437MHz Ant2 (MIMO) NTNV



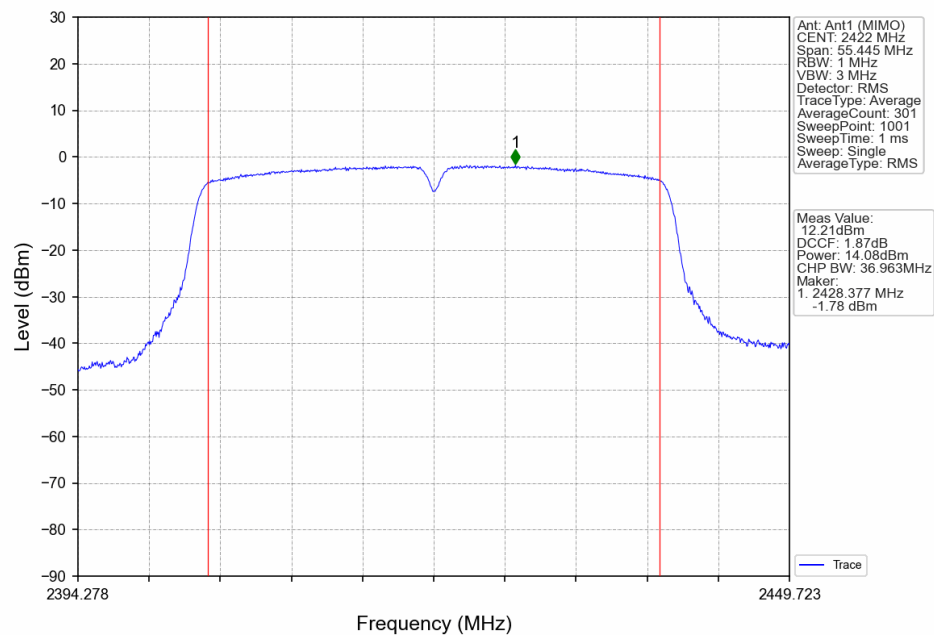
802.11n(HT20) HCH 2462MHz Ant1 (MIMO) NTVN



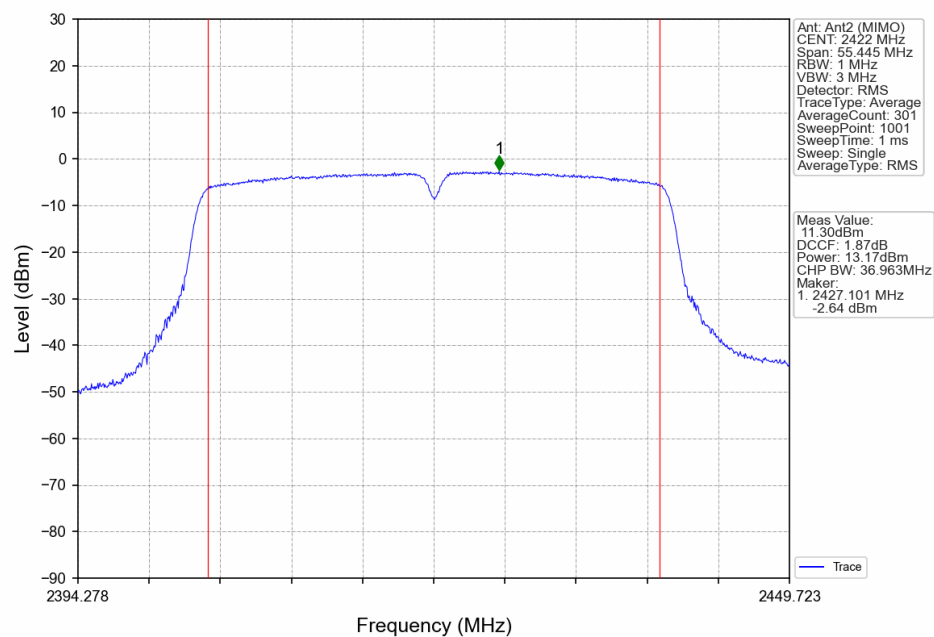
802.11n(HT20) HCH 2462MHz Ant2 (MIMO) NTVN



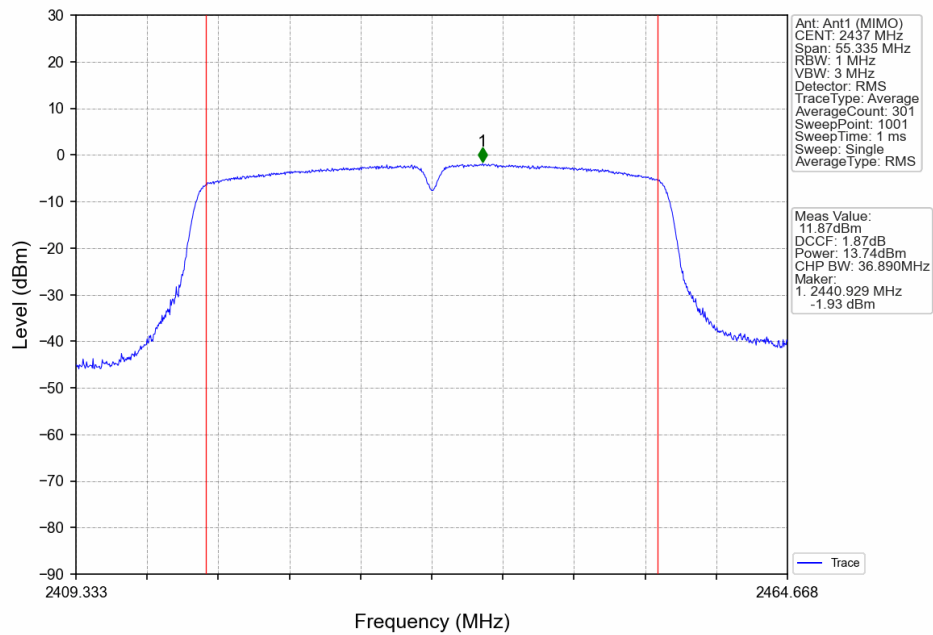
802.11n(HT40) LCH 2422MHz Ant1 (MIMO) NTNV



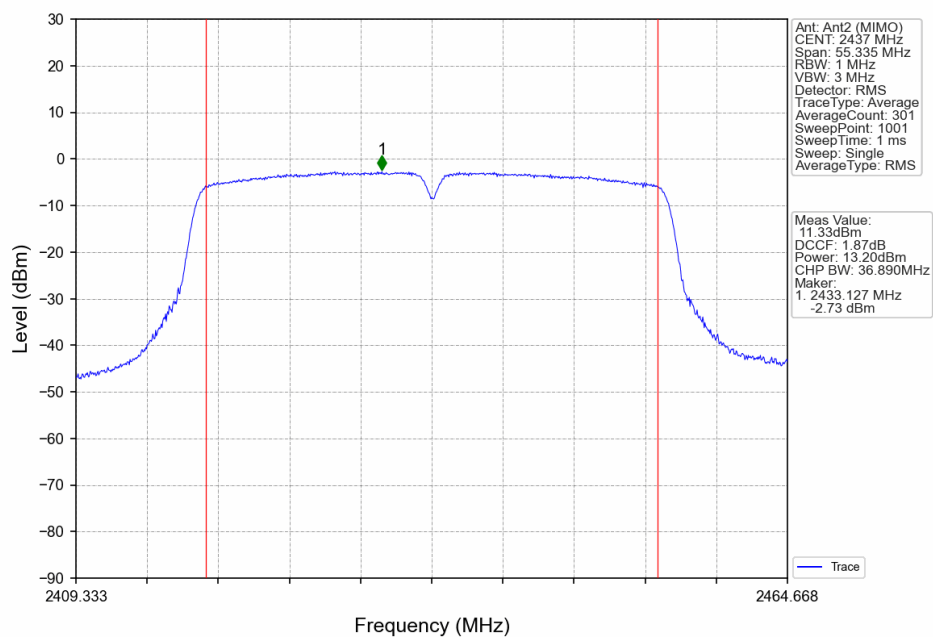
802.11n(HT40) LCH 2422MHz Ant2 (MIMO) NTNV



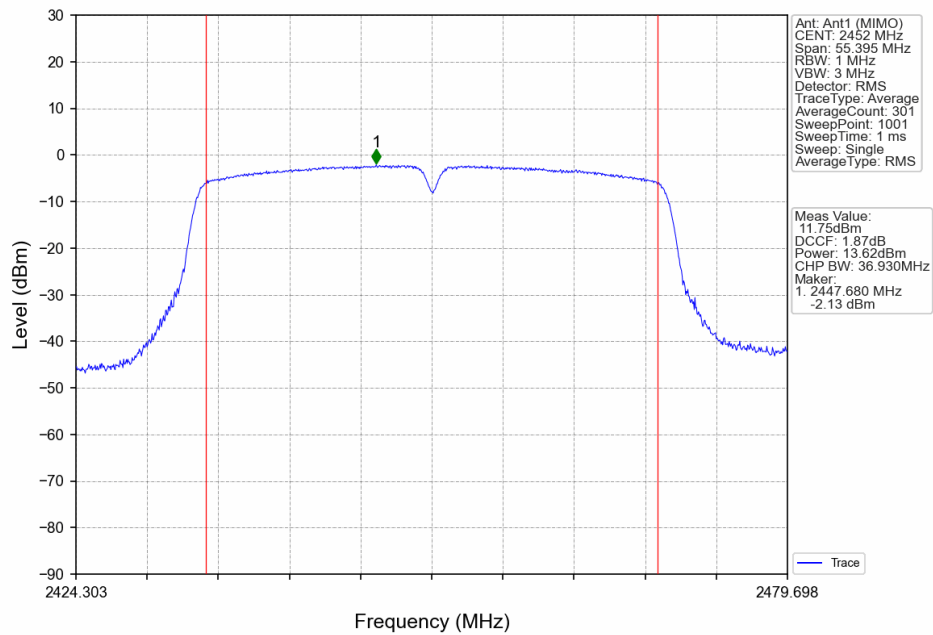
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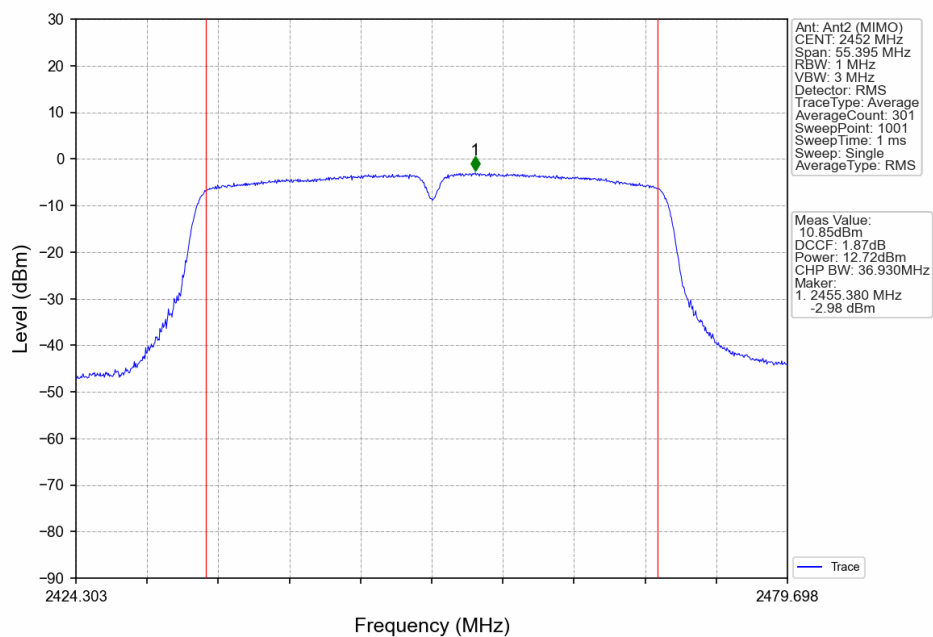
802.11n(HT40) MCH 2437MHz Ant2 (MIMO) NTVN



802.11n(HT40) HCH 2452MHz Ant1 (MIMO) NTNV



802.11n(HT40) HCH 2452MHz Ant2 (MIMO) NTNV



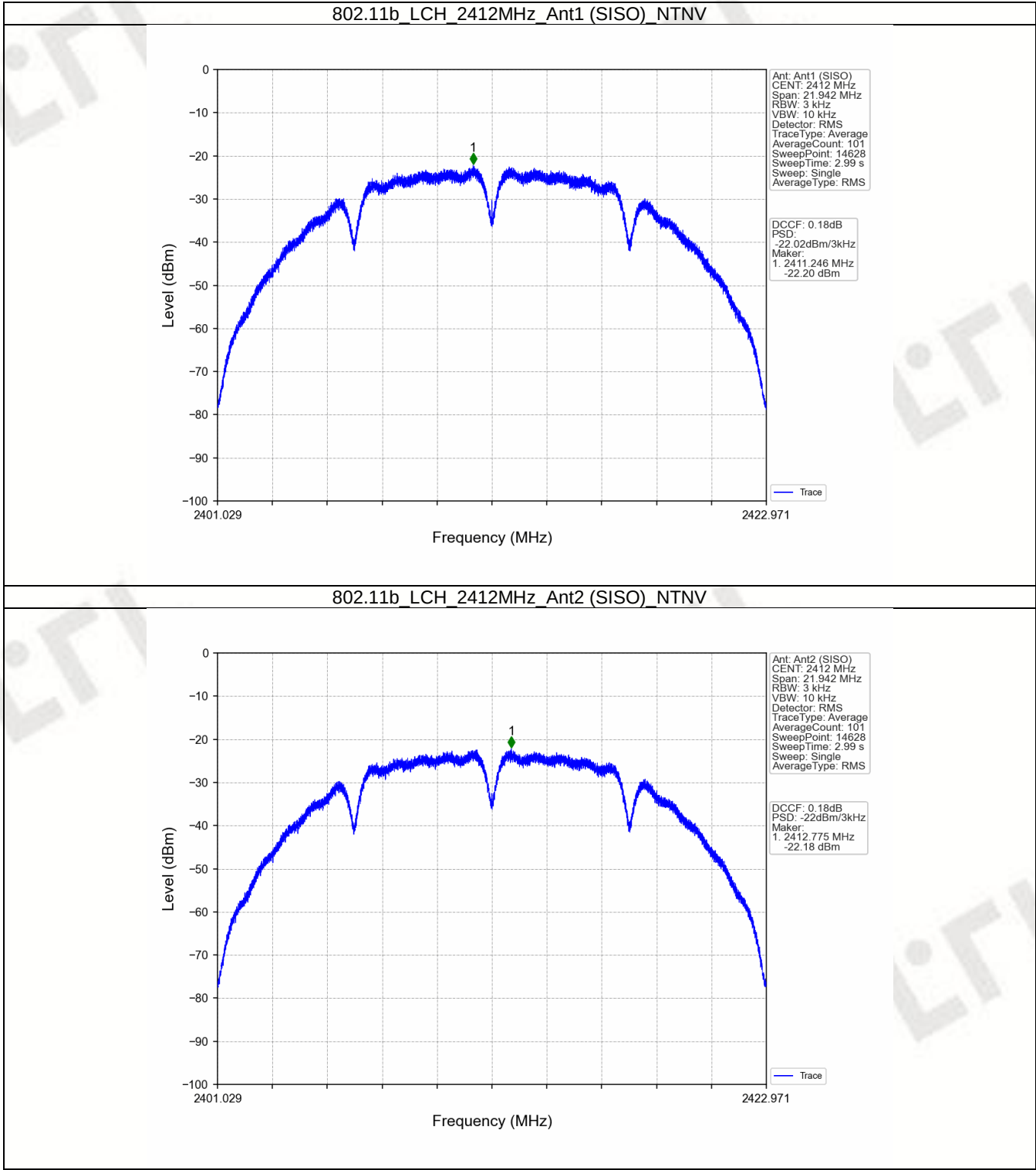
3. Maximum Power Spectral Density

3.1 PSD

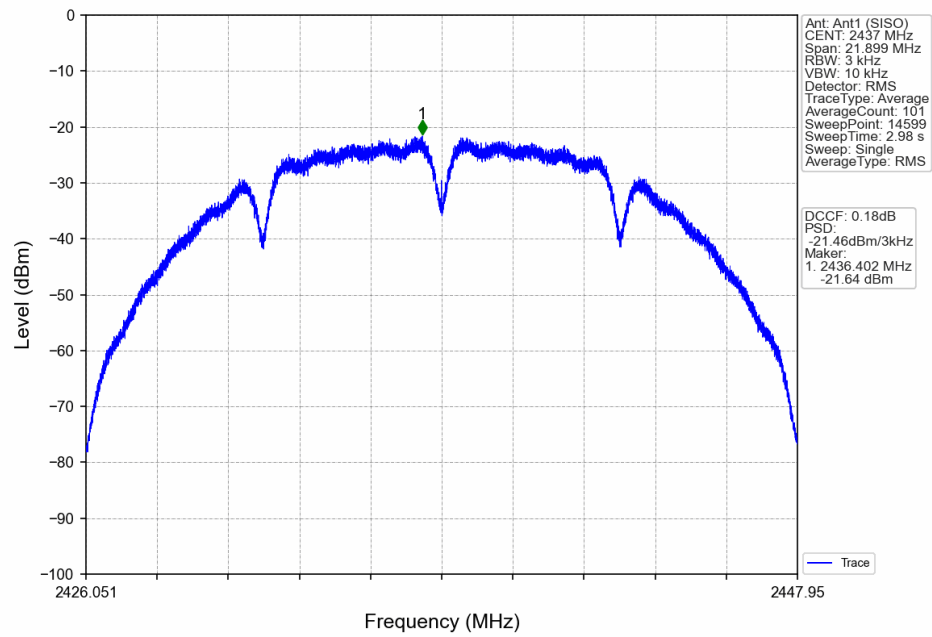
3.1.1 Test Result

Mode	TX Type	Frequency (MHz)	Maximum PSD (dBm/3kHz)				Verdict
			ANT1	ANT2	MIMO	Limit	
802.11b	SISO	2412	-22.02	-22.00	/	<=8	Pass
		2437	-21.46	-21.55	/	<=8	Pass
		2462	-21.90	-21.68	/	<=8	Pass
802.11g	SISO	2412	-18.35	-18.59	/	<=8	Pass
		2437	-17.74	-17.73	/	<=8	Pass
		2462	-18.01	-18.16	/	<=8	Pass
802.11n (HT20)	SISO	2412	-18.09	-18.53	/	<=8	Pass
		2437	-17.79	-18.29	/	<=8	Pass
		2462	-18.34	-18.89	/	<=8	Pass
802.11n (HT40)	SISO	2422	-18.80	-19.90	/	<=8	Pass
		2437	-18.50	-17.08	/	<=8	Pass
		2452	-19.49	-20.02	/	<=8	Pass
802.11n (HT20)	MIMO	2412	-19.30	-18.88	-16.86	<=8	Pass
		2437	-19.32	-18.06	-16.87	<=8	Pass
		2462	-18.92	-18.87	-17.13	<=8	Pass
802.11n (HT40)	MIMO	2422	-18.77	-19.08	-15.91	<=8	Pass
		2437	-18.50	-19.24	-15.99	<=8	Pass
		2452	-19.14	-18.63	-15.87	<=8	Pass
Note1: Antenna Gain: Ant1: 2.50dBi; Ant2: 2.50dBi; Note2: Directional Gain: 5.5dBi							

3.1.2 Test Graph



802.11b MCH 2437MHz Ant1 (SISO) NTN



802.11b MCH 2437MHz Ant2 (SISO) NTN

